## INSTRUCTIONS - DEP FORM 62-624.600(2) ANNUAL REPORT FORM FOR INDIVIDUAL NPDES PERMITS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS

## Who Must Submit This Annual Report Form?

 Operators of municipal separate storm sewer systems (MS4s) that are covered by an individual NPDES stormwater permit pursuant to Rule 62-624, F.A.C. must submit this form. Each permitted operator must individually complete and submit this form, even if the operator is covered under a permit with multiple copermittees or has established an interlocal agreement with one or more co-permittees.

## When to Submit This Annual Report Form?

This form must be fully completed and submitted for each year of coverage under the NPDES stormwater permit
term. The Year 1 Annual Report must cover the twelve-month period beginning on the effective date of the
permit and is due six months after the first anniversary of the date of permit issuance. All subsequent annual
reports are due six months after the anniversary of the effective date of the permit.

## Where To Submit This Annual Report Form?

This form and any REQUIRED attachments must be sent by mail to the address below. The form and
attachments may be submitted electronically (on a disk or CD) if a signed paper copy of Section VI of this
(Certification Statement and Signature) is also submitted. Do not submit any materials not specifically required to
be submitted as per Section V of this form.

Florida Department of Environmental Protection NPDES Stormwater Section Mail Station 2500 2600 Blair Stone Road Tallahassee, Florida 32399-2400

## Section I: BACKGROUND INFORMATION

- Row A Provide the name of the governmental entity submitting this form. For example, "City of Laudelhill."
- Row B Provide the name of the permit as it appears on the first page of your permit. For example, "Broward County MS4." The permit name will not necessarily be the same name provided in Row A if the permit covers multiple co-permittees. If the name of the permit is the same name provided in Row A, repeat the name in Row B do not leave the row blank.
- Row C Provide the last two digits of your permit number as it appears on the first page of your permit.
- Row D Indicate which permit year the annual report covers. If the permit year is beyond Year 5, check the last box and provide the appropriate permit year number.
- Row E Indicate the twelve-month period the annual report covers. Provide the month and year for the beginning of the period and the month and year for the end of the period. For example, "March/2003 through February/2004." Do not provide the day.
- Row F Provide contact information for your Responsible Authority. The definition of a Responsible Authority can be found at Rule 62-620.305, F.A.C.
- Row G Provide contact information for the Designated Stormwater Management Program Contact if it isn't the same person as the Responsible Authority identified in Row F, otherwise leave this section blank. The Stormwater Management Program Contact is the technical person that oversees the stormwater program and is the primary contact for when the Department has questions about the annual report, is scheduling an annual inspection, or needs to discuss miscellaneous issues concerning implementation of the permit.

## Section II: MS4 MAJOR OUTFALL INVENTORY

- This section is required to be completed in all permit years EXCEPT Year 1. In Year 1, you are required to provide an inventory and a map of all known major outfalls, in accordance with Rule 62-624.600(2)(a), F.A.C. In all subsequent permit years, you need to only provide any updates to the inventory by completing this section.
- The definition of a "major" outfall can be found at Rule 62-624.200(5), F.A.C.

- For the third item listed, indicate whether you attached the major outfall inventory and a map of the major outfall locations in accordance with Rule 62-624.600(2)(a), F.A.C. This item is only applicable in Year 1. For all other reporting years, check the "N/A" box.
- For the fourth item listed, indicate whether you attached the estimates of pollutant loadings and event mean concentrations as required under Part V.A of your permit and in accordance with Rule 62-624.600(2)(b), F.A.C. This item is only applicable in Year 3. For all other reporting years, check the "N/A" box.
- For the fifth item listed, indicated whether you attached your permit re-application in accordance with the re-application requirements in Rule 62-624.420(2), F.A.C. This item is only applicable in Year 4. For all other reporting years, check the "N/A" box.

## Section VI: CERTIFICATION STATEMENT AND SIGNATURE

The Responsible Authority listed in Section I.F of this form must sign the certification statement provided in this section, in accordance with Rule 62-620.305, F.A.C. The annual report form will be returned to the permittee if the required signature is not included. If you choose to submit the annual report and attachments electronically, a signed paper copy of this section must also be submitted.

## Section VII: STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE

- <u>Column A</u> Columns B through F must be completed for each SWMP element indicated by the permit citation in Column A. No information is to be inserted by the permittee in this column.
- <u>Column B</u> Provide a summary of the permit requirements in Part III.A of your permit for each SWMP element and, underneath the summary, list the quantifiable SWMP activities related to the requirements. The particular quantifiable SWMP activities are specific to each permittee, but must include, at a minimum, the quantifiable activities that are required by the permit to be reported.
- <u>Column C</u> Provide a number representing the activities performed in the current reporting year for each of the quantifiable SWMP activities you listed in Column B. This column may not be left blank for any of the quantifiable SWMP activities listed in Column B.
- Column D Provide a title or description of the record that documents each number you provided in Column C. For example, "Daily Work Orders," "Illicit Complaint/Investigation Forms and Log," or "Construction Inspection Checklists and Log." If the activity is recorded entirely in an electronic database system, you may provide the name of the system, such as the "Hansen Model." This column may not be left blank for any of the numbers provided in Column C.
- Column E Provide the name of your department/division that is responsible for performing each of the activities listed in Column B, or provide the name of the co-permittee, private contractor, or other entity that is performing the activities on your behalf. Try to be as specific as possible by including, for example, the name of the employee responsible for a particular SWMP activity if only that employee can answer any questions concerning the activity. This column may not be left blank for any of the SWMP activities listed in Column B.
- <u>Column F</u> This column allows for any <u>brief</u> comments you determine are necessary to explain the information you provided in Columns C, D, and E.

## Section VIII: CHANGES TO STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES

- This section is to be completed, as applicable, in all permit years EXCEPT Year 4. In Year 4, any desired changes to your SWMP activities should be included in your permit re-application that is to be attached to the Year 4 Annual Report Form.
- Row A If applicable, include in this row any requested changes to your SWMP activities that are established as specific requirements under Part III.A of your permit. Provide the permit citation/SWMP element that corresponds to the SWMP activity you want changed, describe the requested change, and provide a rationale for the change. Such changes cannot be implemented without prior approval from the Department and may require a permit revision in accordance with Rule 62-620.325, F.A.C.
- Row B If applicable, include in this row any changes to your SWMP activities that are NOT established as specific requirements under Part III.A of your permit but rather are activities at the discretion of the permittee. Provide the permit citation/SWMP element that corresponds to the SWMP activity you have changed, describe the change, and provide a rationale for the change.



## ANNUAL REPORT FORM FOR INDIVIDUAL NPDES PERMITS FOR MUNICIPAL SEPARATE STORM SEWER SYSTEMS (RULE 62-624.600(2), F.A.C.)

- This Annual Report Form must be completed and submitted to the Department to satisfy the annual reporting requirements established in Rule 62-621.600, F.A.C.
- Submit this fully completed and signed form and any REQUIRED attachments by mail to the address in the box at right.
- Refer to the Form Instructions for guidance on completing each section.
- Please print or type information in the appropriate areas below.

Submit the form and attachments to: Florida Department of Environmental Protection Mail Station 2500 2600 Blair Stone Road Tallahassee, Florida 32399-2400

Α.	Permittee Name: City of Miami Beach							
В.	Permit Name: Miami-Dade County Municipa	al Separate Storm	Sewer System					
C.	Permit Number: FLS000003-003 (Cycle 3)							
D.	Annual Report Year:   Year 1  Year 2	2 ☐ Year 3 [	☐ Year 4 🔯	Year 5	☐ Other, specify Year:			
E.	Reporting Time Period (month/year): June/2	2015 through Jui	ne/2016					
	Name of the Responsible Authority: Eric T. C	Carpenter, P.E.						
	Title: Assistant City Manager and Public Wor	rks Department D	irector					
	Mailing Address: 1700 Convention Center Drive, 4th Floor							
F.	City: Miami Beach	Zip Code: 3313	19	County:	Miami-Dade County			
	Telephone Number: 305-673-7080	Fax Number: 305-673-7028						
	E-mail Address: ericcarpenter@miamibeachfl.gov							
	Name of the Designated Stormwater Management Program Contact (if different from Section I.F above): Margarita Wells							
	Title: Environmental Resources Manager							
	Department: Environment and Sustainability Department							
3.	Mailing Address: 1700 Convention Center Drive, 4th Floor							
	City: Miami Beach	Zip Code: 3313	9	County:	Miami-Dade County			
	Telephone Number: 305-673-7010		Fax Number: 786-394-4595		-4595			
	E-mail Address: margaritawells@miamibeachfl.gov							

SECT	ION II. MS4 MAJOR OUTFALL INVENTORY (Not Applicable In Year 1)	
A.	Number of outfalls ADDED to the outfall inventory in the current reporting year (insert "0" if none): 8 (4 major of (Does this number include non-major outfalls? 🛛 Yes 🔲 No 🔲 Not Applicable)	utfalls)
В.	Number of outfalls REMOVED from the outfall inventory in the current reporting year (insert "0" if none):0 (Does this number include non-major outfalls? ☐ Yes ☐ No ☒ Not Applicable)	
c.	Is the change in the total number of outfalls due to lands annexed or vacated?   Yes  No  Not App	licable

SECT	ION III.	MONITORING	PROGRAM	
A.	The mor	nitoring plan is o	as to the status of monitoring plan implementation: carried out through an inter-local agreement with Miami-Dade County. Please s port for the monitoring information.	ee the Miami-
B.			of the monitoring results to date: Ide County Annual Report for the monitoring information.	
C.			summary, as required by the permit.	
SECT	ION IV.	FISCAL ANA	LYSIS	
A.	incorpor	rated in the Stor	NPDES stormwater management program for the current reporting year: NPDES manuater Utility Budget. The total expenditure was \$ 7,718,291.41	
<b>~.</b>			resources have decreased from the previous year, attach a discussion of the impact SWMP as per Part II.F of the permit.	s on the
В.			ES stormwater management program for the subsequent reporting year: <b>The Stormw</b> e subsequent reporting year is \$ 11,017,000.00	<i>r</i> ater
Minasa				
SECT	ION V.	MATERIALS T	O BE SUBMITTED WITH THIS ANNUAL REPORT FORM	
			o be submitted to the Department along with this fully completed and signed Annual icate whether the item is attached or is not applicable):	Report Form
Att	tached	N/A	*** <u>DEP Note:</u> Please complete Checklists A & B at the end of the tailored for	
			Any additional information required to be submitted in this current annual reporting accordance with Part III.A of your permit that is not otherwise included in Section	year in /II below.
	$\boxtimes$		A monitoring data summary as directed in Section III.C above and in accordance v 624.600(2)(c), F.A.C.	vith Rule 62-
		$\boxtimes$	Year 1 ONLY: An inventory of all known major outfalls and a map depicting the loc major outfalls (hard copy or CD-ROM) in accordance with Rule 62-624.600(2)(a),	
		$\boxtimes$	Year 3 ONLY: The estimates of pollutant loadings and event mean concentrations outfall or each major watershed in accordance with Rule 62-624.600(2)(b), F.A.C.	for each major
		$\boxtimes$	Year 4 ONLY: Permit re-application information in accordance with Rule 62-624.4	20(2), F.A.C.
		(such as recor	DO NOT SUBMIT ANY OTHER MATERIALS ds and logs of activities, monitoring raw data, public outreach materials, etc.)	
		0.3011.00.3000.2000.2000.000		CONTRACTOR STATE
SECT	ION VI.	CERTIFICATION	ON STATEMENT AND SIGNATURE	
The R	Responsibl	e Authority listed	in Section I.F above must sign the following certification statement, as per Rule 62-6	20.305, F.A.C:
I certif	fy under po	enalty of law that	this document and all attachments were prepared under my direction or supervision that qualified personnel properly gathered and evaluated the information submitted.	in accordance
my ind	quiry of the nation sub	e person or perso mitted is, to the b	ns who manage the system, or those persons directly responsible for gathering the <b>i</b> lest of my knowledge and belief, true, accurate and complete. I am aware that there	nformation, the
		0	rmation, including the possibility of fine and imprisonment for knowing violations.	
	-	nsible Authority (	1	
Title:	_A:	ssistant City Man	ager and Public Works Department Director	/
Signa	ture:		Date: 12/20	/16
			ASSS. DIRECTOR PUBLIC WORKS	

Part III.A.1	Element	Permit Citation/ SWMP	Α.	SECTION V
Structural Controls and Stormwater Collection Systems Operation		Permit Requirement/Quantifiable SWMP Activity	B.	SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
	renomed	Number of Activities	C.	
		Documentation / Record	D,	
	Activity	Entity Performing the	iπ	
		Comments	F.	

of control structures listed in Table II.A.1.a of the permit. Report the current known inventory. Maintain an up-to-date inventory of the structural controls and roadway stormwater collection structures operated by the permittee, including, at a minimum, all of the types

planned for the future. The permittee may remove any structural controls listed that it does not have currently or will likely not have during this permit cycle. Please see the unit of measurement in the documentation. Unit options include: miles, linear feet, acres, etc. the attached description of each type of structure. In addition, the permittee may choose its own unit of measurement for each structural control to be consistent with <u>DEP Note</u>: The permittee needs to "customize" this section by adding any structural controls to the list below that are part of the permittee's MS4 currently or are

Provide an inventory of all known major outfalls covered by the permit and a map depicting the location of the major outfalls (hard copy or CD-ROM). Provide the outfall inventory and map with the Year 1 Annual Report.

they were not and a description of the actions that will be taken to ensure that they will be met type of structure inspected and maintained. If the minimum inspection frequencies set forth in Table II.A.1.a were not met, provide as an attachment an explanation of why Report the number of inspection and maintenance activities conducted for each type of structure included in Table II.A.1.a, and the percentage of the total inventory of each

an attachment an explanation of why they were not and a description of the actions that will be taken to ensure that they will be met. Please provide the title of the DEP Note: If the minimum inspection frequencies set forth in Table II.A.1.a of the permit were not met for one or more type of structure, the permittee must provide as attached explanation in Column D and the name of the entity who finalized the explanation in Column E

Major stormwater outfalls	Stormwater pump stations	Pollution control boxes	Exfiltration trench / French drains (linear feet)		Type of Structure
24*	25*	158	23,126.4	Total Number of Structures	
0	Monthly	38	6,230.4	Number of Inspections	Number of
0%	100%	26%	26.94%	Percentage Inspected	Number of Activities Performed
0	Minimum Quarterly	38	6,230.4	Number of Maintenance Activities	erformed
0%	100%	26%	26.94%	Percentage Maintained	
	GIS Sequel Server Select Queries				Documentation / Record
Stormwater Operations  Public Works – Stormwater Operations		Public Works –		Entity Performing the Activity	
No major outfalls	See Attachment 1.	Activities increased by 26% from previous year.	Activities increased by 20.44% from previous year.		Comments

			Part III.A.2							Permit Citation/ SWMP Element	P	SECTION VII.
Number of new development / significant redevelopment projects reviewed	DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.	Report the number of new development and significant redevelopment projects reviewed by the permittee for post-development stormwater considerations	Areas of New Development and Significant Redevelopment	Year 1 ONLY: Attach a map of all known major outfalls	ATTACH explanation if any of the minimum inspection frequencies in Table II.A.1.a were <u>not</u> met	Inlets / catch basins / grates	MS4 pipes / culverts (miles)	Weirs or other control structures		Permit Requirement/Quantifiable SWMP Activity	В.	/II. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
nt redevelop	in Column F	gnificant red	Redevelopn	ch a map of	าum inspecti	4,852	95.3	œ		iable SWMP		RAM (SWMP)
oment projec	for any "0" re	evelopment p	nent	all known m	ion frequenc II.A.1.a w	6,102	39.29			Activity		SUMMARY
ts reviewed	eported in Co	rojects reviev		ajor outfalls	frequencies in Table II.A.1.a were <u>not</u> met	126%	41.2%	See comments.				TABLE
422	lumn C.	ved by the po				6,102	39.29	nments.		Number of Activities Performed	C.	
N		ermittee for				126%	41.2%	,		er of ties med		
Completed Review Time Report by Plan Reviewer – Public Works		post-development stor			Attachment 1 - Explana Stormwater Collection Maintenance Program.					Documentation / Record	D.	
Building Department / Public Works Department		mwater consideration			Attachment 1 - Explanation of Structural Controls and Stormwater Collection Systems Operation Inspection and Maintenance Program.					Entity Performing the Activity	iu	
Total number was estimated from building permits reviewed for new construction and alteration and alteration and remodeling/repairs or = to \$400,000 reviewed during the reporting year.		ns.			Controls and on Inspection and	Activities increased by 124% from previous year.	Activities increased by 24.8% from previous year.	Weirs and other control structures are cleaned with the rest of the system, but their clean dates are not currently recorded individually.	were cleaned this reporting year. See Attachment 1.	Comments	<b>,</b> III	



DEP Form 62-624.600(2), Effective January 28, 2004

	III.A.3	Part	Permit Citation/ SWMP Element	SECTION VII.
PERMITTEE Litter Control Program: Estimated amount of area maintained (miles/day)  PERMITTEE Litter Control Program: Estimated amount of litter collected (tons/year)  PERMITTEE Litter Control Program: Estimated amount of litter collected (tons/year)  PERMITTEE Litter Control Program: Estimated amount of litter collected (tons/year)  Procedures  8,035  NPDES Tracker – Sanitation Division (Miami-Dac County So Waste Manageme Adopt-A-Road or similar program is implemented by the permittee, please note that in Column F but do not remove the Adopt-A-Road Program reporting terms. Total miles cleaned (trash bags)  Trash Pick-up Events: Estimated amount of litter collected (trash bags)  Adopt-A-Beach Program: Estimated amount of litter collected (bags)  Adopt-A-Beach Program: Estimated amount of litter collected (bags)  Miami-Dac County So Waste Manageme of the quantity of litter collected. Unit options include: bags, cubic yards, pounds, tons. If an Logal Project Hope of Hope (Logal Hope)  Project Hope)  Adopt-A-Beach Program: Estimated amount of litter collected (bags)  Adopt-A-Beach Program: Estimated amount of litter collected (bags)  Miami-Dac County So Waste Main an estimate of the quantity of litter collected. Unit options include: bags, cubic yards, pounds, tons. If an Logal Project Hope of Hope (Logal Hope) (Logal Hope)  Project Hope (Logal Hope) (	Annually review (and revise, as needed) and implement the permittee's written procedures for the litter control program(s) for public streets, roads, and highways, including rights-of-way, employed within the permittee's jurisdictional area and properly dispose of collected material. Implement the program on a monthly, or on an as needed, rights-of-way, employed within the permittee's jurisdictional area and properly dispose of collected material. Implement the program on a monthly, or on an as needed, basis. Report on the litter control program, including the frequency of litter collected.  The activities, and an estimate of the quantity of litter collected.  DEP Note: Please provide an explanation in Column F for any "0" reported in Column C. In addition, the permittee may choose its own units of measurement for the reporting items. Unit options for the amount of area covered by the activity include: the provided in column is possible to the provided and the provided in column is possible to the provided and the provided in column is possible to the provided and the provided in column is possible to the provided and the provided in column is possible to the provided and the provided in column is possible to the provided and the provided in column is possible to the provided and the provided in column is possible to the provided in the	Provide in the Year 2 Annual Report the summary report of the review of local codes activity. Provide in the Year 4 Annual Report the follow-up report on plan implementation of modifying codes to allow low impact design BMPs.    DEP Note: Refer to Part III.A.2 of the permit for details regarding what the review entails, and what must be included in the summary report and follow-up report. Please provide the title of the attached report in Column D and the name of the entity who finalized the report in Column E.    Year 2 ONLY: Attach the summary report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONLY: Attach the follow-up report on plan implementation   Year 4 ONL	Permit Requirement/Quantifiable SWMP Activity	VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE B.
176  8,035  8,035  8,035  of litter collected. Uthat in Column F but 106.1 (2.1 volunteer cleanups, 104 Project Hope)  276 (68 volunteer clean-ups, 208 Project Hope)  0  0	res for the litter control f collected material.  n estimate of the tota  nn C. In addition, th  nds, tons. Unit option  ff or by control for	tivity. Provide in the ntails, and what mus by who finalized the r	Number of Activities Performed	c.
Standard Operating Procedures  NPDES Tracker – Sanitation  NPDES Tracker – Sanitation  NPDES Tracker – Sanitation  Unit options include: bags, cubic yards, pounds, tons. If an but do not remove the Adopt-A-Road Program reporting item  Volunteer Clean-Up Event Forms & Project Hope Program SOP NPDES Tracker – Adopt-a-Beach  Miami Be transports collected to Miami collected.  Manager Dispos Facilitie  Program reporting item Wain non-with whic partnered i reporting lost fundin lost fundin became in not have Adopt-A-I	litter control program(s) for public streets, roads, and highways, incommendate in material. Implement the program on a monthly, or on an as needed of the total number of road miles cleaned or amount of area covered of the total number of road miles cleaned or amount of area covered by the activity include:  **Districtors** but not by both places remove the non-captional activity include:	Year 4 Annual Report t t be included in the sum eport in Column E.	Documentation / Record	D.
Public Works – Sanitation Division  V of litter collected.  s, cubic yards, pounds pt-A-Road Program re City of Miami Beach through local non-profits	streets, roads, and hi on a monthly, or on a cleaned or amount of a leaned or amount of a its own units of meas a covered by the action	he follow-up report on imary report and follow	Entity Performing the Activity	in
Miami Beach transports litter collected to the Miami-Dade County Solid Waste Management Disposal Facilities.  s, tons. If an eporting items.  Main non-profit with which we partnered in past reporting years lost funding and became inactive.  The City does not have an Adopt-A-Road	ghways, including an as needed, area covered by surement for the airth include:	w-up report.	Comments	ŢĪ

	Permit Citation/ SWMP Element	A	SECTION VII.
	Permit Requirement/Quantifiable SWMP Activity	В.	SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
	Number of Activities Performed	C,	
	Documentation / Record	D.	
	Entity Performing the Activity	Ľ.	
Program. The City's Adopt-a-Beach Program has been cancelled due to operational issues.	Comments	Ę.	6

Report on the street sweeping program, including the frequency of the sweeping, total miles swept, an estimate of the quantity of sweepings collected, and the total nitrogen (TN) and total phosphorus (TP) loadings that were removed by the collection of sweepings. If no street sweeping program is implemented, provide the explanation of why not in the Year 1 Annual Report.

of sweeping material collected. Unit options include: cubic yards, pounds, tons. <u>DEP Note:</u> Please provide an explanation in Column F for any "0" reported in Column C. Also, the permittee may choose its own unit of measurement for the amount

Annual Report. Refer to Part III.A.3 of the permit for the information that must be included in the explanation (including the alternate BMPs used or planned in lieu of street sweeping). Please provide the title of the attached explanation in Column D and the name of the entity who finalized the explanation in Column E. DEP Note: If the permittee has curbs and gutters but no street sweeping program is implemented, the permittee must provide an explanation of why not in the Year 1

annually review (and revise, as needed) and implement the permittee's written standard practices to reduce the pollutants in stormwater runoff from areas associated with	Year 1 ONLY: If have curbs and gutters, attach explanation of why no street sweeping program and the alternate BMPs used or planned	Total phosphorus loadings removed (pounds)	Total nitrogen loadings removed (pounds)	Estimated quantity of sweeping material collected (Kg)	Total miles swept (per day)	Frequency of street sweeping
d practices to reduce		844	1,317	1,060,769	117	Daily
the pollutants in stormw		Maintenance Practices	Load Reductions from MS4	Calculated Nutrient	Procedures	Sanitation Division Standard Operating
ater runoff from areas			Sanitation Division	Public Works –		
associated with	N/A	collected over one quarter.	weight of street	Determined from		

number of applicable facilities and the number of inspections conducted for each facility. road repair and maintenance, and from permittee-owned or operated equipment yards and maintenance shops that support road maintenance activities. Report the Annually review (and revise, as needed) and implement the permittee's written standard practices to reduce the pollutants in stormwater runoit from areas associated with

<u>DEP Note:</u> The permittee needs to "customize" this section by listing the names of the applicable facilities in Column B and the number of inspections of each facility in Column C. Add more rows if necessary. If "0" is reported in Column C for the number of inspections conducted and the permittee has one or more applicable facilities, please provide an explanation in Column F for why no inspections were conducted. In addition, if the same facility is applicable under both Parts III.A.3 and III.A.5 of the permit, the same site inspection can count towards both inspection requirements as long as it covers the applicable waste area(s). Be sure to report the site

Name of facility #1: Public Works Yard	
1	Number of Inspections
NPDES Tracker – Facility Inspections	
Public Works – Environmental Division	

MAIN DE

Part III.A.4	Permit Citation/ SWMP Element	Ņ.	SECTION VI
Flood Control Projects	Permit Requirement/Quantifiable SWMP Activity	В.	SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
	Number of Activities Performed	C.	
	Documentation / Record	D.	
	Entity Performing the Activity	ΪШ	
	Comments	'n	

on any stormwater retrofit planning activities and the associated implementation of retrofitting projects to reduce stormwater pollutant loads from existing drainage systems that do not have treatment BMPs. stormwater treatment. The permittee shall provide a list of the projects where stormwater treatment was not included with an explanation for each of why it was not. Report Report the total number of flood control projects that were constructed by the permittee during the reporting period and the number of those projects that did NOT include

<u>DEP Note:</u> A "stomwater retrofit project" is one implemented primarily to provide stormwater treatment

duplication for those reported as planned, for those reported as under construction and for those reported as completed <u>DEP Note:</u> The status of the flood control and retrofit projects should be reported as of the last day of the applicable reporting period. Therefore, there should be no

<u>DEP Note:</u> If applicable, please provide the title of the attached list of flood control projects that did not include stormwater treatment in Column D and the name of the entity who finalized the list in Column E.

	Stormwater retrofit projects completed during the reporting period 3 (2 Public Works, 1 CIP)	Stormwater retrofit projects under construction during the reporting period 12 (7 Public Works, 5 CIP)	38 (27 Public Works, 11 CIP)	ATTACH a list of the flood control projects that did <u>not</u> include stormwater treatment and an explanation for each of why it was not	Flood control projects completed during the reporting period that did <u>not</u> include stormwater treatment  0	Flood control projects completed during the reporting period 3 (2 Public Works,				
:	CIP Office List for Environmental Division List/Public Works Projects List									
		CIP Department / Public Works Department								
	adaptation strategy.	upgrade program as part of its sea	aggressive stormwater	treatment. In July 2013, the City	projects include stormwater	All of the City's flood control				

## Part III.A.5 Municipal Waste Treatment, Storage, and Disposal Facilities Not Covered by an NPDES Stormwater Permit

Annually review (and revise, as needed) and implement the permittee's written procedures for inspections and the implementation of measures to control discharges from the following facilities that are not otherwise covered by an NPDES stormwater permit:

- Operating municipal landfills
- Municipal waste transfer stations;
- Municipal waste fleet maintenance facilities; and
- Any other municipal waste treatment, waste storage, and waste disposal facilities

Report the number of applicable facilities and the number of the inspections conducted for each facility

DEP Note: Column C. Add more rows if necessary. If "0" is reported in Column C for the number of inspections conducted and the permittee has one or more applicable facilities. The permittee needs to "customize" this section by listing the names of the applicable facilities in Column B and the number of inspections of each facility in

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					Part III.A.6				Permit Citation/ SWMP Element	Ą.	SECTION VII.
PERSONNEL: Green Industry BMP Program training completed	CONTRACTORS: FDACS certified / licensed applicators of fertilizer	(FDACS) certified applicators of pesticides and herbicides  CONTRACTORS: FDACS certified / licensed applicators of pesticides and	<u>DEP Note:</u> If "0" is reported in Column C for any of the reporting items, please include in Column F an explanation of why training was not provided to / obtained by personnel and contractors during the applicable reporting year, the most recent year that training / certification was previously provided / obtained, and the names of the personnel and contractors previously trained / certified.	Continue to require proper certification and licensing by the Florida Department of Agriculture and Consumer Services (FDACS) for all applicators contracted to apply pesticides, herbicides, or fertilizers on permittee-owned property, as well as any permittee personnel employed in the application of these products. Report the number of permittee personnel applicators and contracted commercial applicators of pesticides and herbicides who are FDACS certified / licensed. Report the number of permittee personnel and contractors who have been trained through the Green Industry BMP Program, and the number of contracted commercial applicators of fertilizer who are FDACS certified / licensed.	Pesticides, Herbicides, and Fertilizer Application	Name of facility #1: Green Waste Facility		please provide an explanation in Column F for why no inspections were conducted. An applicable facility under Part III.A.5 includes, but is not limited to, those facilities/yards where street sweeping material and/or yard waste are temporary stockpiled, and where solid waste collection vehicles are parked and/or maintained. In addition, if the same facility is applicable under both Parts III.A.3 and III.A.5 of the permit, the same site inspection can count towards both inspection requirements as long as it covers the applicable waste area(s). Be sure to report the site inspection under both Parts III.A.3 and III.A.5.	Permit Requirement/Quantifiable SWMP Activity		/II. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
10	12 in 3 companies 0	4	ıde in Column F an ı ır that training / certi	ulture and Consume ee personnel employ d herbicides who are gram, and the numbo		<u> </u>	Inspections	An applicable factory stockpiled, and all.A.5 of the permination of the permination of the inspection und	Number of Activities Performed	C.	
Greenspace Management Division - Certifications/Licens es/Certificates	Maintenance Contractors for Greenspace 2016	Management Division - Certifications/Licens es/Certificates NPDES -	explanation of why train fication was previously p	onsumer Services (FDACS) for all applicators contracted to apply lemployed in the application of these products. Report the number of who are FDACS certified / licensed. Report the number of permittee in number of contracted commercial applicators of fertilizer who are		NPDES Tracker – Facility Inspections		An applicable facility under Part III.A.5 includes, but is not limited to, those ry stockpiled, and where solid waste collection vehicles are parked and/or ill.A.5 of the permit, the same site inspection can count towards both inspection site inspection under both Parts III.A.3 and III.A.5.	Documentation / Record	D.	
Public Works - Greenspace Division	Greenspace Division	Public Works - Greenspace Management Division	ing was not provided provided / obtained, a	all applicators contra these products. Rep sed. Report the nurr rcial applicators of fer		Public Works – Environmental Division		includes, but is not lection vehicles are ion can count towards !!!!.A.5.	Entity Performing the Activity	μ	
			to / obtained by nd the names of	loted to apply ort the number of ort of permittee tilizer who are		The Green Waste Facility collects only vegetation yard waste that is disposed off-site at Waste Management Hialeah Transfer/Recycling Center (Kimmins).		limited to, those parked and/or s both inspection	Comments	F.	

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										Permit Citation/ SWMP Element	Þ
Estimated percentage of the population reached by the activities in total	<u>DEP Note:</u> Indicate under Column E "Entity Performing the Activity" if FYN or IFAS is performing any of the reported public education and outreach activities. addition, please complete the following line:  FYN PROGRAM FUNDING: Permittee Provides Funding? ☐ Yes ☒ No Amount of Funding = \$	<u>DEP Note:</u> Miami-Dade County is to report the public education and outreach activities that it performed county-wide (and not just in the unincorporated areas of Miami-Dade County). The co-permittees are to report just the public education and outreach activities that they performed.	<u>DEP Note:</u> The permittee should "customize" the list of public outreach activities by removing items or adding items to the list below as appropriate to their particular public outreach program. However, the reporting item of "Estimated percentage of the population reached by the activities in total" must remain. The permittee may add more specifics to the reporting items, such as the name of the brochure or newsletter distributed. If "0" is reported in Column C for all the reporting items please include in Column F an explanation for why no outreach was performed.	During Year 1 of the permit, develop and implement a written public education and outreach program plan to encourage citizens to reduce their use of pesticides, herbicides, and fertilizers. Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage citizens to reduce their use of pesticides, herbicides, and fertilizers, including the type and number of activities conducted, the type and number of materials distributed, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable). Activities performed under the Florida Yards and Neighborhoods (FYN) program should only be reported if the permittee is contributing funding towards the FYN staff and program within its jurisdiction.	Year 1 or Year 2 ONLY: Attach copy of adopted Florida-friendly ordinance	DEP Note: Please provide the title and citation of the ordinance in Column D, and the name of	<u>DEP Note:</u> If this provision is not applicable because the permittee is not within the watershed $F$ , but do not remove this reporting item.	Pursuant to SB 2080 (2009), all local governments are encouraged to adopt a Florida-friendly Landscaping Ordinance similar to the one set forth in the document "Florida-friendly Guidance Models for Ordinances, Covenants and Restrictions." If the broader Florida-friendly ordinance described above is not adopted, then all local governments within the watershed of a nutrient-impaired water body shall adopt the Department's Model Ordinance for Florida-Friendly Fertilizer Use on Urban Landscapes pursuant to SB 494 (2009) or an ordinance that includes all of the requirements set forth in the Model Ordinance. The ordinance shall be adopted within 24 months of the date of permit issuance. Provide a copy of the adopted ordinance with the subsequent Year 1 or Year 2 Annual Report.	CONTRACTORS: Green Industry BMP Program training completed	Permit Requirement/Quantifiable SWMP Activity	В.
50%	IFAS is performing any of the reported permittee Provides Funding? ☐ Yes	vities that it performe d outreach activities t	y removing items or a f the population reach wsletter distributed. If	each program plan to are performed or spor g the type and numbor of Web site viting funding towards to		the name of the entit		riendly Landscaping of Florida-friendly ordinated for Florida for Florida for Florida for The Ordinance. The Ordinance or Year 2 Annual Re	4 in 2 companies	Number of Activities Performed	C.
	'the reported public edu ding? □ Yes ⊠ No	d county-wide (and not hat they performed.	adding items to the list I ned by the activities in to "0" is reported in Colun	bencourage citizens to sored by the permittee or of activities conducte sits (if applicable). Activities FYN staff and programe to the programe of the program		the entity who finalized the ordinance in Column E	of a nutrient-impaired water body, then please indicate that in Column	Ordinance similar to the ance described above is orida-Friendly Fertilizer rdinance shall be adopt port.	NPDES – Landscape Maintenance Contractors for Greenspace 2016	Documentation / Record	D.
Environment and Sustainability Department / Communications	ication and outreach acti	just in the unincorpora	below as appropriate to stal" must remain. The in C for all the reportin	reduce their use of perwithin the permittee's d, the type and numbe vities performed under am within its jurisdiction		nance in Column E.	ly, then please indicate	one set forth in the do s not adopted, then <u>all</u> Use on Urban Landsco ed within 24 months or	Public Works - Greenspace Division	Entity Performing the Activity	m
This estimate takes into consideration that the City's	ctivities. In	ted areas of	o their particular o permittee may g items please	sticides, jurisdiction to r of materials the Florida Yards n.			that in Column	ocument "Florida- local governments apes pursuant to f the date of	SFM Services, LLC was the only company that did not have staff trained in BMPs.	Comments	,TI

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						Permit Citation/ SWMP Element	SECTION VII.
Seminars/Workshops: Number of participants  Special events: Number conducted	Seminars/Workshops: Number conducted	Public displays (e.g., kiosks, storyboards, posters, etc.)  Radio or television Public Service Announcements (PSAs)	Newspapers & newsletters: Number of articles/notices published Newsletters: Number of newsletters distributed	Neighborhood presentations: Number conducted Neighborhood presentations: Number of participants		Permit Requirement/Quantifiable SWMP Activity	VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE B.
0 0	0	0	65,000 Quarterly 155,000 Readers Quarterly	0 0		Number of Activities Performed	C. 84 7 114
		Recycling Outreach Tracker and Communications Statistics				Documentation / Record	<b>D</b>
Environment and Sustainability Department	Department Environment and Sustainability Department	Environment and Sustainability Department	Communications Department	Environment and Sustainability Department	Department	Entity Performing the Activity	
stormwater and water quality into all Division events. Pollution Prevention Board or other	Environmental Division incorporates	Prevention Board or other stormwater quality information is included when Division tables at all events.	MB Magazine is produced quarterly. It is estimated that the publication reaches 155,000 readers.	Environmental Division incorporates stormwater and water quality into all Division events.	outreach and education activities extend to residents, local visitors and national/internati onal tourists.	Comments	

					Part III.A.7.c			Part III.A.7.a		-	Citation/ SWMP Element	Ą	SECTION VII.
in Column D and the name of the entity who finalized the plan in Column E.  Proactive inspections performed by Miami-Dade County on behalf of a copermittee for suspected illicit discharges / connections / dumping	<u>DEP Note:</u> Miami-Dade County is to report the ONLY the proactive inspections it performed in the unincorporated areas of Miami-Dade County – any proactive inspections it performed in the co-permittees' jurisdictions are to be reported by the co-permittees. The co-permittees may report the IWP inspections performed by Miami-Dade County in their jurisdictions only if the inspections included looking for illicit discharges / connections / dumping to the MS4. Each co-permittee is to report the Miami-Dade County proactive inspections in their jurisdiction separately from the proactive inspections that the co-permittee performed itself.  DEP Note: Refer to Part III.A.7.c of the permit for what must be included in the written proactive inspection program plan. Please provide the title of the attached plan	<u>DEP Note:</u> Proactive inspections may include, for example, suspect areas (e.g., industrial areas), commercial businesses (e.g., restaurants, car washes, service stations, laundries / dry cleaners, auto body shops, mobile carpet cleaners) or temporary activities (e.g., special events / fairs / circus) that would not otherwise be inspected during routine inspections and maintenance of the MS4, in association with high risk industrial facilities or construction sites, or in response to citizen or staff reports.	<u>DEP Note:</u> If "0" is reported in Column C for the first reporting item, please include an explanation in Column F for why no proactive inspections were performed. In addition, the permittee should re-word the "NOVs / warning letters / citations issued" reporting item to more accurately reflect its particular initial enforcement activity, necessary.	During Year 1 of the permit, develop and implement a written proactive inspection program plan for identifying and eliminating sources of illicit discharges, illicit connectio or dumping to the MS4. Report on the proactive inspection program, including the number of inspections conducted, the number of illicit activities found, and the number and type of enforcement actions taken.	Illicit Discharges and Improper Disposal — Investigation of Suspected Illicit Discharges and/or Improper Disposal	<u>DEP Note:</u> If applicable, please provide the title of the attached report in Column D and the name of the entity who finalized the report in Column E.  ATTACH a report on any amendments to the applicable legal authority	Where applicable, strengthen the legal authority to conduct inspections, conduct monitoring, control illicit discharges, illicit connections, illegal dumping and spills into the MS4 and to require compliance with conditions in ordinances, permits, contracts, and orders. Report amendments, as needed.	Illicit Discharges and Improper Disposal — Inspections, Ordinances, and Enforcement Measures	Web Site: Number of hits / visitors to the stormwater-related pages	Special events: Number of participants	Permit Requirement/Quantifiable SWMP Activity	B.	III. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
38	erformed in the unin co-permittees. The illicit discharges / co ne proactive inspectic	dustrial areas), comr sorary activities (e.g., ith high risk industria	an explanation in Cc 1" reporting item to m	am plan for identifyir ber of inspections co	narges and/or Impro	and the name of the	ring, control illicit dis ders. Report ameno	ment Measures	1,253	0	Number of Activities Performed	C.	
Miami Beach – Priority Inspection List	the unincorporated areas of Miami-Dade County- es. The co-permittees may report the IWP inspec rges / connections / dumping to the MS4. Each co inspections that the co-permittee performed itself. e inspection program plan. Please provide the title	nercial businesses (e.g. special events / fairs / l facilities or construction	tion in Column F for why no proactive inspections were performed. In item to more accurately reflect its particular initial enforcement activity, if	identifying and eliminating sources of illicit discharges, illicit connections, ctions conducted, the number of illicit activities found, and the number	per Disposal	entity who finalized th	charges, illicit connection Iments, as needed.				Documentation / Record	D,	
Miami-Dade County RER	ami-Dade County – an ort the IWP inspection the MS4. Each co-per e performed itself.	,, restaurants, car was circus) that would not m sites, or in response	active inspections were s particular initial enfor	ces of illicit discharges f illicit activities found, a		e report in Column E.	ons, illegal dumping an		Environment and Sustainability Department		Entity Performing the Activity	m	
	y proactive s performed by rmittee is to report the attached plan	hes, service otherwise be to citizen or staff	erformed. In cement activity, if	and the number			nd spills into the			stormwater quality information is included when Division tables at all events.	Comments	F.	

SECTION VII.	III. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE				
٨		C.		E.	
Permit Citation/ SWMP	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	Proactive inspections performed by the permittee for suspected illicit discharges / connections / dumping	12		Code Compliance and Public Works – Right-of-Way Division	Code Compliance patrols our alleys daily for
	Illicit discharges / connections / dumping found during a proactive inspection	7 (4 by MDC, 3 by CMB ROW)	Search Complaints Report, NPDES Tracker – SW Inspections, and	Code Compliance and Public Works - Right-of-Way Division and	biohazard violations, including grease, dumpster, and
	Notices of Violation (NOVs) / warning letters / citations issued for illicit discharges / connections / dumping found during a proactive inspection	81 (76 by MDC, 5 by CMB)	Priority Inspection List	Code Compliance and Public Works - Right-of-Way Division and Miami-Dade County RER	county numbers for violations found during proactive inspection were
	Fines issued for illicit discharges / connections / dumping found during a proactive inspection	4 (0 by MDC, 4 by CMB ROW)	Search Complaints Report	Code Compliance and Public Works - Right-of-Way Division and	reactive inspection data and were therefore
	Year 1 ONLY: Attach the written proactive inspection program plan	<b>年</b> 大型工作工作工作工作工作工作工作工作工作工作工作工作工作工作工作工作工作工作工作		County RER	same number.

Annually review (and revise, as needed) and implement the permittee's written procedures to conduct reactive investigations to identify and eliminate the source(s) of illicit discharges, illicit connections or improper disposal to the MS4, based on reports received from permittee personnel, contractors, citizens, or other entities regarding suspected illicit activity. Report on the reactive investigation program as it relates to responding to reports of suspected illicit discharges, including the number of reports report information from the County. received, the number of investigations conducted, the number of illicit activities found, and the number and type of enforcement actions taken. If a permittee relies on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual

<u>DEP Note:</u> If the number of reports received differs from the number of reactive investigations, please provide an explanation for the discrepancy in Column F. In addition, the permittee should re-word the "NOVs / warning letters / citations issued" reporting item to more accurately reflect its particular initial enforcement activity, if

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		bujuwiip /	Reactive investigations of reports of suspected illicit discharges/ connections				Reports of suspected illicit connections / discharges / dumping received	
	by CMB ROW)	by CMB Code, 14	65 (4 by MDC, 47		יין כועום וייטעי)	by CMR BOWN	by CMR Code 14	65 /4 by MDC 47
Web Q&A Service	Inspections, and	Tracker – SW	Report, NPDES	Search Complaints	Inspections	Tracker – SW	Report, NPDES	Search Complaints
		DIVISION	Division	- Pight of May	and Dublic Marks	Codo Compliano		
launched a new	note that the City	received. Please	harges/dumping	connections/disc	suspected illicit	reports of	investigates all	City staff

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SECTION VII.	SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE  A.   B.	O.	D .	
Þ	В.	C.		D.
Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed		Documentation / Record
				Request Reports
	Illicit discharges / connections / dumping found during a reactive investigation	127 (76 by MDC, 44 by CMB Code 7 by CMB ROW)	Ş <sub>ē</sub> ,	Search Complaints  Report, NPDES  OC, Tracker – SW  de, Inspections, and  W) Web Q&A Service  Request Reports
	Notices of Violation (NOVs) / warning letters / citations issued for illicit discharges / connections / dumping found during a reactive investigation	126 (76 by MDC, 44 by CMB Code, 6 by CMB ROW)	ode,	- 0
	Fines issued for illicit discharges / connections / dumping found during a reactive investigation	46 (0 by MDC, 4 by CMB Code, 3 by CMB ROW)	MDC, 43 Code, 3 ROW)	ω ω
			,	

During Year 1 of the permit, develop and implement a written plan for the training of all appropriate permittee personnel (including field crews, fleet maintenance staff, and inspectors) and contractors to identify and report conditions in the stormwater facilities that may indicate the presence of illicit discharges / connections / dumping to the MS4. Refresher training shall be provided annually. Report the type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training).

<u>DEP Note:</u> If "0" is reported for either reporting item, please include in Column F an explanation of why training was not provided to / obtained by personnel and contractors during the applicable reporting year, the most recent year that training was previously provided / obtained, and the names of the personnel and contractors previously trained.

Contractors trained		Personnel trained	
0	0	29	Initial Training
0	c	D	Refresher Training
	Training	Attendance List from	
	Department	Environment and	
During the reporting year, the City trained contractors on BMPs when responding to violations and during construction site			

								Part III.A.7.d		Permit Citation/ SWMP Element	A.	SECTION VII.
Contractors trained	Personnel trained		<u>DEP Note:</u> If "0" is reported for either reporting item, please include in Column F an explanation of why training was not provided to / obtained by personnel and contractors during the applicable reporting year, the most recent year that training was previously provided / obtained, and the names of the personnel and contractors previously trained.	During Year 1 of the permit, develop and implement a written plan for the training of all appropriate permittee personnel (including field crews, firefighters, fleet maintenance staff and inspectors) and contractors on proper spill prevention, containment, and response techniques and procedures. Refresher training shall be provided annually. Report the type of training activities, and the number of permittee personnel and contractors trained (both in-house and outside training).	Hazardous a	<u>DEP Note:</u> The permittee may report the number of hazardous material spills separately from the number of non-hazardous material spills, <u>or</u> report one combined number, to more accurately reflect its tracking of these spills.	Annually review (and revise, as needed) and implement the permittee's written spill-prevention/spill-response plan and procedures to prevent, contain, and respond to spills that discharge into the MS4. Report on the spill prevention and response activities, including the number of spills addressed. If a permittee relies on the Miami-Dade County Fire Department to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report information from the County.	Illicit Discharges and Improper Disposal		Permit Requiren		VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
0	0	Initial Training	or either reporting item, ple	op and implement a written ors on proper spill preventic ss, and the number of perm	Hazardous and non-hazardous material spills responded to	ay report the number of haz eflect its tracking of these s	eeded) and implement the port on the spill prevention and these activities on its behometry.			Permit Requirement/Quantifiable SWMP Activity	B.	ENT PROGRAM (SWMP) (
0	See comments.	Refresher Training	ase include in Column F a st recent year that training	n plan for the training of all on, containment, and respont, containment and contra	ial spills responded to	ardous material spills sepa	permittee's written spill-prend response activities, including the permittee shall obtools.	Spill Prevention and Response		Activity		SUMMARY TABLE
			n explanation of why was previously provic	appropriate permittee onse techniques and l ctors trained (both in-	162	arately from the numb	vention/spill-responsouding the number of a care in (and, upon reque			Number of Activities Performed	C.	
N/A	Miami Beach Fire Dept Haz-Mat Training		of why training was not provided to / obtained by personnel and y provided / obtained, and the names of the personnel and contr	ermittee personnel (including field cles and procedures. Refresher train (both in-house and outside training).	NPDES Report – Fire Department	er of non-hazardous m	e plan and procedures i spills addressed. If a p st, Miami-Dade County			Documentation / Record	D.	
N/A	Fire Department		ed to / obtained by pernames of the personn	(including field crews, firefighters, fleet mainter Refresher training shall be provided annually, outside training).	Fire Department	aterial spills, <u>or</u> report	o prevent, contain, an ermittee relies on the shall make available)			Entity Performing the Activity	ù	
The City does not utilize contractors to respond to hazardous spills.	This year the City tracked the total number of hazmat training hours instead of the total number of staff trained. The entire Fire Department force received 2,430.5 of different hazmat training.		rsonnel and el and contractors	fleet maintenance ded annually.		one combined	nd respond to spills Miami-Dade the necessary		inspections.	Comments	Ţ	

						Part III.A.7.e	Permit Citation/ SWMP Element	A.
Newspapers & newsletters: Number of articles/notices published Newsletters: Number of newsletters distributed	Neighborhood presentations: Number of participants	Noishbarbard agreemed by the activities in total	<u>DEP Note:</u> Miami-Dade County is to report the public education and outreach activities that it performed county-wide (and not just in the unincorporated areas of Miami-Dade County). The co-permittees are to report just the public education and outreach activities that they performed.	<u>DEP Note:</u> The permittee should "customize" the list of public outreach activities by removing items or adding items to the list below as appropriate to their particular public outreach program. However, the reporting item of "Estimated percentage of the population reached by the activities in total" must remain. If the permittee relies on the 24-Hour Miami-Dade County hotline, the reporting item of "Publicize the Miami-Dade County Pollution Complaint Hotline" must also remain. The permittee may add more specifics to the reporting items, such as the name of the brochure or newsletter distributed. If "0" is reported in Column C for all the reporting items, please include in Column F an explanation for why no outreach was performed.	During Year 1 of the permit, develop and implement a written public education and outreach program plan to promote, publicize, and facilitate public reporting of the presence of illicit discharges and improper disposal of materials into the MS4. If a permittee relies on the 24-Hour Miami-Dade County hotline as its telephone line for citizen reporting, the permittee shall publicize the existence of the 24-Hour Miami-Dade County pollution complaint hotline number on a routine basis. Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage the public reporting of suspected illicit discharges and improper disposal of materials, including the type and number of activities conducted, the type and number of materials distributed, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable).	Illicit Discharges and Improper Disposal — Public Reporting	Permit Requirement/Quantifiable SWMP Activity	
65,000 Quarterly 155,000 Readers Quarterly	167	50%	vities that it performed outreach activities t	y removing items or a f the population reach ami-Dade County Poll vsletter distributed. If	each program plan to nittee relies on the 24 County pollution con in the permittee's jur in the permittee's jur ies conducted, the tyr able).		Number of Activities Performed	C
Recycling Outreach Tracker and Communications Statistics	Recycling Outreach Tracker and Communications Statistics		t performed county-wide (and not activities that they performed.	adding items to the list ed by the activities in to ution Complaint Hotlind "0" is reported in Colun"	ram plan to promote, publicize, and facilitate public reporting of the s on the 24-Hour Miami-Dade County hotline as its telephone line for slution complaint hotline number on a routine basis. Report on the pollution complaint hotline number on a routine basis. Report on the percented illimitee's jurisdiction to encourage the public reporting of suspected illimitee's jurisdiction to encourage the public reporting of suspected illimited, the percentage of sted, the type and number of materials distributed, the percentage of		Documentation / Record	<b>D.</b>
Communications Department	Environment and Sustainability Department	Environment and Sustainability Department / Communications Department	just in the unincorpora	below as appropriate to otal" must remain. If the s" must also remain. The on C for all the reportin	nd facilitate public repounty hotline as its telepon a routine basis. Re the public reporting of rials distributed, the periods		Entity Performing the Activity	
MB Magazine is produced quarterly. It is estimated that the publication reaches 155,000	Division incorporates stormwater and water quality into all Division events.	takes into takes into consideration that the City's outreach and education activities extend to residents, local visitors and national/international tourists.	ated areas of	o their particular he permittee relies The permittee may ng items, please	nting of the hone line for port on the public suspected illicit rcentage of the		Comments	<b>1</b>

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			Part III.A.7.f						•			10110110	Permit Citation/ SWMP	A	SECTION VII.
Estimated percentage of the population reached by the activities in total	<u>DEP Note:</u> The permittee should "customize" the list of public outreach activities by removing items or adding items to the list below as appropriate to their particular public outreach program. However, the reporting items of "Estimated percentage of the population reached by the activities in total" and "Publicize the Miami-Dade County Home Chemical Collection Program" must remain. The permittee may add more specifics to the reporting items, such as the name of the brochure or newsletter distributed. If "0" is reported in Column C for all the reporting items, please include in Column F an explanation for why no outreach was performed. <u>DEP Note:</u> Miami-Dade County is to report the public education and outreach activities that it performed county-wide (and not just in the unincorporated areas of Miami-Dade County). The co-permittees are to report just the public education and outreach activities that they performed.	During Year 1 of the permit, develop and implement a written public education and outreach program plan to encourage the proper use and disposal of used motor vehicle fluids, leftover hazardous household products, and lead acid batteries. On a routine basis, inform the public of the locations of collection facilities for these materials, including a description of the types of materials accepted and the hours of operation. Report on the public education and outreach activities that are performed or sponsored by the permittee within the permittee's jurisdiction to encourage the proper use and disposal of oils, toxics, and household hazardous waste, including the type and number of activities conducted, the type and number of materials distributed, the amount of waste collected / properly disposed, the percentage of the population reached by the activities in total, and the number of Web site visits (if applicable).	Illicit Discharges and Improper Disposal — Oils, Toxics, and Household Hazardous Waste Control	Web Site: Number of visitors to the stormwater-related pages	Special events: Number of participants	Special events: Number conducted	Seminars/Workshops: Number of participants	Seminars/Workshops: Number conducted		Radio or television Fublic Service Announcements (FSAS)	Tubile displays (e.g., Niosas, Stolyboards, posters, etc.)		Permit Requirement/Quantifiable SWMP Activity		/II. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
50%	y removing items or of the population read more specifics to the ase include in Columivities that it performed outreach activities t	reach program plan to asis, inform the public sis, inform the public exeport on the public of our and disposal of our amount of waste colleable).	us Waste Control	6,146	300	ယ	374	16	and 24 times respectively	that aired 50 times	0		Number of Activities Performed	C,	
	adding items to the list shed by the activities in e reporting items, such if F an explanation for will county-wide (and not hat they performed.	o encourage the proper of the locations of collections of collection and outreach ils, toxics, and househoused / recycled / proper oten / recycled / recycled / proper oten / recycled / proper oten / recycled /						- 1					Documentation / Record	D.	
Environment and Sustainability Department /	below as appropriate total" and "Publicize total" and "Publicize to as the name of the bn why no outreach was p just in the unincorpora	use and disposal of usection facilities for thes activities that are perfold hazardous waste, it y disposed, the percerly disposed, the percerly			Environment and Sustainability Department				Department	Communications	Environment and Sustainability Department		Entity Performing the Activity	<b>E</b>	
This estimate takes into consideration	to their particular he Miami-Dade ochure or erformed. ated areas of	ised motor vehicle se materials, formed or including the type intage of the			stormwater quality information is included when Division tables at all events.	or other	Prevention Board	Pollution			Prevention Board or other stormwater quality information is included when Division tables at all events.		Comments	<b>=</b> (1)	

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155,000 Readers Quarterly
65,000 Quarterly
Number of Activities Performed

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SECTION VII.	II. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE  B.	<b>C</b>			<b>.</b>
Permit Citation/ SWMP Element	Permit Requirement/Quantifiable SWMP Activity	Number of Activities Performed	Documentation / Record	Entity Performing the Activity	Comments
	Radio or television Public Service Announcements (PSAs)	0		Communications Department	
	Seminars/Workshops: Number conducted	16	!		Pollution
	Seminars/Workshops: Number of participants	374			Prevention Board
	Special events: Number conducted	3			or other
	Special events: Number of participants			Environment and Sustainability	stormwater quality
		300		Department	included when Division tables at all events.
	Web Site: Number of visitors to the stormwater-related pages	4,350			
Part III.A.7.g	Illicit Discharges and Improper Disposal — Limitation of Sanitary Sewer Seepage				
	Annually review (and revise, as needed) and implement the permittee's written procedures to reduce or eliminate <u>sanitary wastewater contamination into the MS4</u> , including discharges to the MS4 from sanitary sewer overflows (SSOs) and from inflow / infiltration from collection / transmission systems and/or septic tank systems. Advise the appropriate utility owner of a violation if constituents common to wastewater contamination are discovered in the MS4. Report on the type and number of activities undertaken to reduce or eliminate SSOs and inflow/ infiltration, the number of SSOs or inflow / infiltration incidents found and the number resolved, and the name of the	res to reduce or elin in from collection / tr tion are discovered i	inate sanitary wastewate ansmission systems and/ the MS4. Report on the identification and the nun-	r contamination into to septic tank system or septic tank system type and number of their resolved, and the system is the system of their resolved.	the MS4, including  1s. Advise the activities e name of the

owner of the sanitary sewer system within the permittee's jurisdiction.

<u>DEP Note:</u> The permittee should contact the appropriate authorities for accurate reporting information, such as the sanitary sewer system operator who is responsible for investigating and eliminating SSOs and the local health department who is responsible for permitting / overseeing septic tank sys

SSO incidents di	DEP Note: Report only the SSOs and inflow / infiltration incidents into the MS4
SSO incidents discovered	idents into the MS4.

Inflow / infiltration incidents resolved	Inflow / infiltration incidents discovered	SSO incidents resolved	SSO incidents discovered
See comments.	See comments.	20	20
Miami-Dade County E-mail		SSO Incident Reports and Files	
Public Works Engineering Division		Environment and Sustainability Department	
been proactive in its approach to mitigating I&I into the sanitary sewer since 1993. In October 2016, the City completed Phase	The City has	County WASD documented 0 SSO incidents for this reporting year.	Miami-Dade

Part III.A.8.a			Permit Citation/ SWMP	A.	SECTION VII.
Industrial and High-Risk Runoff — Identification of Priorities and Procedures for Inspections	Name of owner of the sanitary sewer system		Permit Requirement/Quantifiable SWMP Activity	B.	. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
Su	Miami-Dade County WASD		Number of Activities Performed	C.	
	WASD		Documentation / Record	D.	
			Entity Performing the Activity	ίū	
		(Implementation and Completion of Corrective Action Plan) of its Second Cycle Sanitary Sewer Evaluation Survey in accordance with an EPA Consent Decree. The final Rehabilitation Report has been submitted to DERM and is appended to this report as Attachment 3.	Comments	л	

body into which each high risk facility discharges. For the purposes of this permit, high risk facilities include: Continue to maintain an up-to-date inventory of all existing high risk facilities discharging into the permittee's MS4. The inventory shall identify the outfall and surface water

- Operating municipal landfills;
- Hazardous waste treatment, storage, disposal and recovery facilities:
- Facilities that are subject to EPCRA Title III, Section 313 (also known as the Toxics Release Inventory (TRI) maintained by the U.S. EPA); and
- Any other industrial or commercial discharge that the permittee determines is contributing a substantial pollutant loading to the permittee's MS4. This could include facilities identified through the proactive inspection program as per Part III.A.7.c of the permit.

annual report information from the County. on Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary Report on the high risk facilities inventory, including the type and total number of high risk facilities and the number of facilities newly added each year. If a permittee relies

<u>DEP Note:</u> The TRI is updated every spring / summer by the U.S. EPA at http://laspub.epa.gov/triexplorer/tri\_release.facility. Select "Facility" on the left, chose your Geographic Location, and then select "Generate Report." Please indicate in Column F when (month / year) you last checked EPA's TRI for applicable facilities.

DEP Note: The total number of high risk facilities reported needs to equal the sum of the numbers of the four types of applicable facilities.

annually. Report on the high risk facilities inspection program, including the number of inspections conducted and the number and type of enforcement actions taken. If a during the permit term; however, facilities identified as high risk due to the findings of the proactive inspection program as per Part III.A.7.c of the permit shall be inspected the stormwater program. While the permittee may determine the order and frequency of the inspections, the permittee shall inspect each identified facility at least once During Year 1 of the permit, develop and implement a written plan for conducting inspections of high risk facilities to determine compliance with all appropriate aspects of

	Permit Citation/ SWMP Element	Ą	SECTION VI
nermittee relies on Miami-Dade County to conduct these activities on its hehalf the normittee relies on Miami-Dade County shall make activities on its hehalf the	Permit Requirement/Quantifiable SWMP Activity	B.	SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
mitton shall obtain (a	Number of Activities Performed	C.	
nd upon root Miom	Documentation / Record	D.	
: Dada Causti aball sa	Entity Performing the Activity	ĬШ	46
oko osoiloblo) the	Comments	77.	

necessary annual report information from the County. permittee relies of Miami-Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the

reflect its particular initial enforcement activity, if necessary. for why no inspections were conducted. In addition, the permittee should re-word the "NOVs / warning letters / citations issued" reporting item to more accurately DEP Note: If "0" is reported for the number of inspections conducted and the permittee has one or more high risk facilities, please provide an explanation in Column F

performed in the unincorporated areas of Miami-Dade County – any high risk facility inspections it performed in the co-permittees' jurisdictions are to be reported by the <u>DEP Note:</u> Miami-Dade County is to report ONLY the inventory of high risk facilities in the unincorporated areas of Miami-Dade County – the inventory of high risk facilities located in the co-permittees' jurisdictions are to be reported by the co-permittees. Likewise, the County is to report ONLY the high risk facility inspections it co-permittees. Each co-permittee is to obtain the necessary information from Miami-Dade County that pertains to its jurisdiction.

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Industrial and High-Risk Runoff — Monitoring for High Risk Industries	through the proactive inspections)	permittee (that are <u>not</u> facilities identified	Other facilities determined as high risk by the	as per Part III.A.7.c	permittee through the proactive inspections	Facilities determined as high risk by the	not landfills or HWTSDR facilities)	EPCRA Title III, Section 313 facilities (that are	and recovery (HWTSDR) facilities	Hazardous waste treatment, storage, disposal	Operating municipal landfills	during the current reporting period	New high risk facilities added to the inventory	Total high risk facilities		おきは は 日本						
or High Ris		0			0		•	>	•	>	0	c	>	0		Fa	ci	oer litie	es			
sk Ind																		oer ctic				
lustries															issued	Fines		high ris	For violations discovered during a			
															citations issued	warning letters /	Violation (NOVs) /	Notices of	high risk inspection			
							County RER	Miami-Dade														
					2016.	of November	Miami Beach as	in the City of	high risk facilities	There are no												

## III.A.8.b Part Monitornia for trigit visy managines

information from the County. substantial pollutant load to the MS4. The evaluation may include site-specific monitoring. Report the number of high risk facilities sampled. If a permittee relies on Miamidischarges to the MS4. New high-risk industrial facilities as defined in 40 CFR 122.26(d)(2)(iv)(C) must be evaluated to determine if the new discharge is contributing a Dade County to conduct these activities on its behalf, the permittee shall obtain (and, upon request, Miami-Dade County shall make available) the necessary annual report Sampling of the discharge to the stormwater system may be required on an as-needed basis in the event that inspections of high-risk facilities disclose suspected illicit

<u>DEP Note:</u> Miami-Dade County is to report ONLY the number of high risk facilities in the unincorporated areas of Miami-Dade County that were sampled – the high risk facilities located in the co-permittees' jurisdictions that were sampled by the County are to be reported by the co-permittees.

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	Part III.A.9.b							III.A.9.a		Permit Citation/ SWMP Element	À	SECTION VII.
As an attachment to the Year 1 Annual Report, the permittee shall submit a written plan that details the standard operating procedures for implementation of the stormwater, erosion and sedimentation inspection program for construction sites discharging stormwater to the MS4. The permittee shall implement the plan for inspecting	Construction Site Runoff — Inspection and Enforcement	Confirmed CGP coverage	DEP Note:       Please provide an explanation in Column F for any "0" reported in Column C. If the number of applicants notified of ERP or CGP coverage is less than the number of construction site plans reviewed, please provide an explanation for the discrepancy in Column F.       Column C. If the number of applicants notified of ERP or CGP coverage is less than the discrepancy in Column F.         Notified of CGP stormwater permit requirements       The Public Works — Engineering Division staff verifies all	Annually review (and revise, as needed) and implement the permittee's written procedures to notify all new development / redevelopment permit applicants of the need to obtain all required stormwater permits. Report the number of new development/redevelopment permit applicants notified of the ERP and CGP, and the number of applicants who confirmed ERP and CGP coverage.	PRIVATE SITES: Construction site plans approved	PERMITTEE SITES: Construction site plans approved PRIVATE SITES: Construction site plans reviewed	Continue to implement the local codes or land development regulations and the written pre-construction site plan review procedures that require the use and maintenance of appropriate structural and non-structural erosion and sedimentation controls during construction to reduce the discharge of pollutants to the MS4. Report the number of permittee and private pre-construction site plans reviewed for stormwater, erosion, and sedimentation controls, and the number approved.  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column C.**  **DEP Note: Please provide an explanation in Column F for any "0" reported in Column F for any "0	Construction Site Runoff — Site Planning and Non-Structural and Structural Best Management Practices	High risk facilities sampled	Permit Requirement/Quantifiable SWMP Activity		II. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
that details the standing ing stormwater to t			mn C. If the number	res to notify all new o opment permit applic	161	48	pre-construction site construction to reduce sedimentation control mmn C.	t Management Pract	N/A		C	
the standard operating procedures for implementation of the water to the MS4. The permittee shall implement the plan for			n F.	development / redevelor cants notified of the ER	Completed Review Time Report by Plan Reviewer from Building Department	Review Trackers 2015 and 2016 Public Works	plan review procedures the discharge of pollut the number app	lices		Documentation / Record	D.	
res for implementation shall implement the p		ap th	FERP or CGP covera	pment permit applican and CGP, and the n	Engineering Division	Public Works	s that require the use ants to the MS4. Reparoved.		Miami-Dade County RER	Entity Performing the Activity	<b>.</b>	
า of the blan for inspecting		projects have received DERM approval, the process through which each project is notified of ERP and CGP requirements.	The Public Works – Engineering Division staff verifies all	nts of the need to umber of	based on location or scope have the potential to impact the ROW.	A Public Works review is only triggered for projects that	and maintenance ort the number of		There are no high risk facilities in the City of Miami Beach as of November 2016.	Comments		

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1	s in accordance	to perform inspection	permittee shall continue	artment approval, the	construction sites immediately upon written approval by the Department. Prior to Department approval, the permittee shall continue to perform inspections in accordance	
	Comments	Entity Performing the Activity	Documentation / Record	Number of Activities Performed	Permit Requirement/Quantifiable SWMP Activity	Permit Citation/ SWMP Element
		Ĭ.		<b>C.</b>	B. Significant Control of the Contro	A
					SECTION VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE	SECTION

with its previously developed construction site inspection procedures. Report on the inspection program for privately-operated and permittee-operated construction sites, including the number of active construction sites during the reporting year, the number of inspections of active construction sites, the percentage of active construction sites inspected, and the number and type of enforcement actions / referrals taken.

If the number of inspections reported is equal to or less than the number of active construction sites, or the percentage inspected is less than 100%, please provide an explanation in Column F. In addition, the permittee should re-word the "NOVs / warning letters / citations issued" reporting item to more accurately reflect its particular initial enforcement activity, if necessary. DEP Note: If "0" is reported in Column C for the number of inspections conducted, please provide an explanation in Column F of why no inspections were conducted.

in Column D and the name of the entity who finalized the plan in Column E. DEP Note: Refer to Part III.A.9.b of the permit for what must be included in the construction site inspection program plan. Please provide the title of the attached plan

L				
PRIVATE SITES: Active construction sites		PERMITTEE SITES: Inspections of active construction sites for proper stormwater, erosion and sedimentation BMPs PERMITTEE SITES: Percentage of active construction sites inspected		PERMITTEE SITES: Active construction sites
1133	100%	36	12	
Private Run-off Activities / Projects / Developments Records	Public Works – ROW Division Standard Operating Procedure	CIP/PW Projects Spreadsheet		
Public Works – Right-of-Way Division	Public Works – Right-of-Way Division / CIP Department			
This number was estimated based on the number of active ROW permits minus the number of CIP projects	average of 3 inspections of each active construction site during the life of the project. Additionally, each project is assigned a resident project inspector to conduct more frequent/regular inspections.	The ROW Division conducts an	estimated based on the number of CIP projects active during the reporting year.	This number was

					Part III.A.9.c									Permit Citation/ SWMP Element	Ņ	SECTION VII.
Permittee construction		permittee's stain and private construction site operators during the applicable reporting year. <u>DEP Note:</u> The permittee should report only the number of staff and private construction site operators trained / certified during the applicable reporting year, and then note in Column F the number of staff who were previously trained / certified. Private site operator training can include pre-construction meetings.	DEP Note: If "0" is repor	During Year 1 of the permit, develop and implement a written plan for stormwater training / outreach for construction site plan reviewers, site inspectors and site operators Provide training for permittee personnel (employed by <u>or under contract with</u> the permittee) involved in the site plan review, inspection or construction of stormwater management, erosion, and sedimentation controls. Also provide training for private construction site operators. All permittee inspectors (employed by or under contract with the permittee) of construction sites shall be certified through the Florida Stormwater, Erosion and Sedimentation Control Inspector Training program, or an equivalent program approved by the Department. Refresher training shall be provided annually. Report the type of training activities, the number of inspectors, site plan reviewers and site operators trained (both in-house and outside training), and the number of private construction site operators trained by the permittee.	Construction Site Runoff —	Year 1 ONLY: Attach the written construction site inspection program plan				Notices of	PRIVATE SITES	PRIVATE SITES		Permit Requ		VII. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
0	Certification Training	should report on neer of staff who	ted for any of the	evelop and imple personnel (emplo dimentation contration sites shall be artment. Refrest hin-house and o	Site Operator Training	e written constru				Violation (NOVs	: Percentage of	Inspections of stormwate		irement/Quantifi	B.	EMENT PROGR
6	Initial Training (non- certification)	were previously training t	If "0" is reported for any of these reporting items, please include in Column F an ex	ment a written plan for yed by or under controls. Also provide trace certified through the ner training shall be putside training), and to	raining	uction site inspectio			Stop Worl	Notices of Violation (NOVs) / warning letters / citations issued	PRIVATE SITES: Percentage of active construction sites inspected	PRIVATE SITES: Inspections of active construction sites for proper stormwater, erosion and sedimentation BMPs		Permit Requirement/Quantifiable SWMP Activity		AM (SWMP) SUMM/
0	0 0	he applicable repo f and private const ed / certified. Priva	ease include in Co	or stormwater training to with the permining for private con Florida Stormwath rovided annually.		n program plan		Fines issued	Stop Work Orders issued	citations issued	sites inspected	sites for proper nentation BMPs				ARY TABLE
		nting year. ruction site operators ate site operator traini	ех	ing / outreach for content thee) involved in the substruction site operater, Erosion and Sedin Report the type of tracte construction site o			0		0	2	100%	3,399		Number of Activities Performed	C.	
Attendance List		reporting year.  onstruction site operators trained / certified during the applicable reperionstruction site operators trained / certified during the applicable reperiods.	planation of why training was not provided to / obtained by the	of construction site plan reviewers, site inspectors and site operators. In the site plan review, inspection or construction of stormwater operators. All permittee inspectors (employed by or under contract of Sedimentation Control Inspector Training program, or an equivalent pe of training activities, the number of inspectors, site plan reviewers on site operators trained by the permittee.			NPDES Tracker – SW Inspections			NPDES Tracker – SW Inspections	Public Works – ROW Division Standard Operating Procedure			Documentation / Record	D.	
Environment and		y the applicable reporti struction meetings.	ot provided to / obtaine	wers, site inspectors alion or construction of sictors (employed by or ctor Training program, iber of inspectors, site permittee.			Building Department / Code Compliance							Entity Performing the Activity	ίω	
Environmental		ing year, and then	d by the	nd site operators. stormwater under contract or an equivalent plan reviewers			inspections inspections issued violations via Code Compliance and logged by the Environmental Division.	construction site	number of	This number was based on the	conducts an average of 3 inspections of each active construction site during the life of the project.	The ROW Division	active during the reporting year.	Comments	<b>.</b> 71	

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Private construction site operators	site plan reviewers  0  Permittee construction 0	site inspectors	Permit Requirement/Qu		/II. STORMWATER MANAGEMENT PROGRAM (SWMP) SUMMARY TABLE
0	0 35		Permit Requirement/Quantifiable SWMP Activity	В.	ROGRAM (SWMP) SUMMARY T
			Number of Activities Performed	C.	ABLE
			Documentation / Record	D.	
	Department	Sustainability	Entity Performing the Activity	Ē,	
program for contractors this reporting year. In future years, we will be looking to train contractors and private construction operators at least once per year.	program points of contact from each department to review and train them in their respective SOPs. Additionally environmental trained the project managers from all departments on site plan review and construction plan inspection procedures. In Year 6, the City is planning to develop an online training module required for all City staff.	met with the	Comments	וד,	

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Permit
Citation/
SWMP
Element

SECTION VII.

CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable in Year 4)

SECTION VIII.

SEC.	SECTION VIII. CHANG	CHANGES TO THE STORMWATER MANAGEMENT PROGRAM (SWMP) ACTIVITIES (Not Applicable In Year 4)
	Permit Citation/	Proposed Changes to the Stormwater Management Program Activities Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change) — REQUIRES DEP APPROVAL PRIOR TO CHANGE IF PROPOSING TO REPLACE OR DELETE AN
	SWMP Element	
Þ		<u>DEP Note:</u> There may be changes deemed necessary after developing / reviewing your plans and SOPs as per Part III.A of the permit, after completing your SWMP evaluation as per Part VI R 2 of the permit or due to a TMDL / RMAP as per Part VII R of the permit.
¥ 4.		
	Permit Citation/	Changes to the Stormwater Management Program Activities NOT Established as Specific Requirements Under Part III.A of the Permit (Including the Rationale for the Change)
œ	SWMP Element	<u>DEP Note:</u> There may be changes deemed necessary after developing / reviewing your plans and SOPs as per Part III.A of the permit, after completing your SWMP evaluation as per Part VI.B.2 of the permit, or due to a TMDL / BMAP as per Part VIII.B of the permit.

· Walter Sand

# CHECKLIST A: ATTACHMENTS TO BE SUBMITTED WITH THE ANNUAL REPORTS

Below is a list of items required by the permit that may need to be attached to the annual report. Please check the appropriate box to indicate whether the item is attached or is not applicable for the current reporting period. Please provide the number and the title of the attachments in the blanks provided.

		YEAR 4: An application to renew the permit.	Part VII.C		
		YEAR 4: The monitoring plan (with revisions, if applicable).	Part V.B.3	$\boxtimes$	
		<b>YEAR 4:</b> If the total annual pollutant loadings have not decreased over the past two permit cycles, revisions to the SWMP, as appropriate.	Part V.A.3	$\boxtimes$	
		<b>YEAR 4:</b> A follow-up report on plan implementation of changes to codes and regulations to reduce the stormwater impact from new development / redevelopment.	Part III.A.2	$\boxtimes$	
		<b>YEAR 3:</b> Estimates of annual pollutant loadings and EMCs, and a table comparing the current calculated loadings with those from the previous two Year 3 ARs.	Part V.A.2	$\boxtimes$	
		<b>YEAR 2:</b> A summary report of a review of codes and regulations to reduce the stormwater impact from new development / redevelopment.	Part III.A.2		
		YEAR 1: A construction site inspection program plan. [For approval by DEP]	Part III.A.9.b		
		YEAR 1: A proactive illicit discharge / connection / dumping inspection program plan.	Part III.A.7.c		
		YEAR 1 or YEAR 2: A copy of the adopted Florida-friendly Ordinance, if applicable.	Part III.A.6	$\boxtimes$	
		<b>YEAR 1:</b> If have curbs and gutters but no street sweeping program, an explanation of why no street sweeping program and the alternate BMPs used or planned.	Part III.A.3		
		<b>YEAR 1:</b> An inventory of all known major outfalls and a map depicting the location of the major outfalls (hard copy or CD-ROM).	Part III.A.1	$\boxtimes$	
		<b>EACH ANNUAL REPORT after approval of the BPCP:</b> The status of the implementation of the Bacterial Pollution Control Plan (BPCP).	Part VIII.B.4.f	$\boxtimes$	
		<b>EACH ANNUAL REPORT:</b> A status report on the implementation of the requirements in this section of the permit and on the estimated load reductions that have occurred for the pollutant(s) of concern.	Part VIII.B.3.e		
Evaluation of the SWMP	2	<b>EACH ANNUAL REPORT:</b> An evaluation of the effectiveness of the SWMP in reducing pollutant loads discharged from the MS4 that, at a minimum, must include responses to the questions listed in the permit.	Part VI.B.2		
Provided by Miami-Dade County		<b>EACH ANNUAL REPORT:</b> Reporting and assessment of monitoring results. [Also addressed in Section III of the Annual Report Form]	Part V.B.9	$\boxtimes$	
		<b>EACH ANNUAL REPORT:</b> A report on amendments / changes to the legal authority to control illicit discharges, connections, dumping, and spills, if applicable.	Part III.A.7.a	$\boxtimes$	
		<b>EACH ANNUAL REPORT:</b> A list of the flood control projects that did <u>not</u> include stormwater treatment and an explanation for each of why it did not, if applicable.	Part III.A.4	$\boxtimes$	
Explanation of Structural Controls and Stormwater Collection Systems Operation Inspection and Maintenance Program	7	<b>EACH ANNUAL REPORT:</b> An explanation of why the minimum inspection frequency in Table II.A.1.a was not met, if applicable.	Part III.A.1		
		<b>EACH ANNUAL REPORT:</b> If program resources have decreased from the previous year, a discussion of the impacts on the implementation of the SWMP.	Part II.F		
Attachment Title	Attachment Number	Required Attachment	Rule / Permit Citation	N/A	Attached
			-		

CHECKLIST	B: THE	III.B.3.d YEAR UIRED ANNUA	AL REVIEWS O	ementation Plan /	Part VIII.B.3.d YEAR 4: A TMDL Implementation Plan / Supplemental SWMP.  REQUIRED ANNUAL REVIEWS OF WRITTEN STANDARD OPERATING PROCEDURES (SOPs) & PLANS
The permit replicate Please indicate	quires annual rete your review st	view, and revisior latus below. If yo	า if needed, of wri งน have made rev	tten Standard Opvisions that need	The permit requires annual review, and revision if needed, of written Standard Operating Procedures (SOPs) and plans (e.g., public education and outreach, training, inspections). Please indicate your review status below. If you have made revisions that need DEP approval, you must complete Section VIII.A of the annual report.
Did not complete review of existing SOP / Plan	Developed <u>new</u> written SOP / Plan	Reviewed & no revision needed to existing SOP / Plan	Reviewed & revised existing SOP / Plan	Permit Citation	Description of Required SOPs / Plans
		×		Part III.A.1	SOP and/or schedule of inspections and maintenance activities of the structural controls and roadway stormwater collection system.
		$\boxtimes$		Part III.A.2	SOP for development project review and permitting procedures and/or local codes and regulations for new development / areas of significant development.
		⊠		Part III.A.3	SOP for the litter control program.
				Part III.A.3	SOP for the street sweeping program.
				Part III.A.3	SOP for inspections of equipment yards and maintenance shops that support road maintenance activities.
				Part III.A.5	SOP for inspections of waste treatment, storage, and disposal facilities not covered by an NPDES stormwater permit.
		$\boxtimes$		Part III.A.6	Plan for public education and outreach on reducing the use of pesticides, herbicides and fertilizer.
		$\boxtimes$		Part III.A.6	
				Part III.A.7.c	Plan for proactive illicit discharge / connections / dumping inspections.*
				Part III.A.7.c	SOP for reactive illicit discharge / connections / dumping investigations.
				Part III.A.7.c	Plan for illicit discharge training.
				Part III.A.7.d	SOP for spill prevention and response efforts.
		⊠		Part III.A.7.d	Plan for spill prevention and response training.
				Part III.A.7.e	Plan for public education and outreach on how to identify and report the illicit discharges and improper disposal to the MS4.
		×		Part III.A.7.f	Plan for public education and outreach on the proper use and disposal of oils, toxics and household hazardous waste.
				Part III.A.7.g	SOP to reduce / eliminate sanitary wastewater contamination of the MS4.
				Part III.A.8	SOP for inspections of high risk industrial facilities.
		$\boxtimes$		Part III.A.9.a	SOP for construction site plan review for stormwater, erosion and sedimentation controls, and ERP and CGP coverage.
		×		Part III.A.9.b	Plan for inspections of construction sites.*
		$\boxtimes$		Part III.A.9.c	Plan for stormwater, erosion and sedimentation BMPs training.

<sup>\*</sup> Revisions to these plans require DEP approval – please complete Section VIII.A of the annual report.

REMINDER LIS	REMINDER LIST OF THE TMDL / BMAP REPORTS TO BE SUBMITTED <u>SEPARATELY</u> FROM AN ANNUAL REPORT	PORT
Rule / Permit Citation	Report Title	Due Date
Part VIII.B.3.a	6 MONTHS from effective date of permit: TMDL Prioritization Report.	12/21/11
Part VIII.B.3.b	12 MONTHS from effective date of permit: TMDL Monitoring and Assessment Plan.	6/21/12
Part VIII.B.3.c	6 MONTHS from receiving analyses from the lab: TMDL Monitoring Report.	TBD
Part VIII.B.4	30 MONTHS from effective date of permit: A Bacterial Pollution Control Plan (BPCP).	12/21/13

## END OF REVISED TAILORED MS4 AR FORM CYCLE 3 PERMIT

Page 3 of 3

## Part III.A.1 Explanation of Structural Controls and Stormwater Collection Systems Operation Inspection and Maintenance Program

The Public Works Department, Stormwater Operations Division (Operations) is responsible for inspecting and maintaining the City's Municipal Separate Storm Sewer System (MS4). The City's MS4 operation inspection and maintenance program uses a combination of contractor and City staff efforts to strategically clean the system basin-by-basin, addressing all structures within a basin from east to west within a one-year period with the goal of cleaning the entire system once per year. Per cleaning event, City staff creates a cleaning work order which includes the basin area to be cleaned, the structures within that basin, and an inspection form. The City's work order system in Cityworks allows the City to track these activities in GIS. The City's GIS database is then reviewed and analyzed at the end of each reporting year to provide the information requested in the Annual Report form.

The City uses as-builts, which are required to be submitted by each City contractor after final completion of a project so we can maintain an accurate inventory of our stormwater system. However, the quick speed at which the City is retrofitting our aging stormwater combined with project-specific issues that prevent projects from reaching final completion have resulted in a substantial lag between the time a new portion of our system becomes operational and when it is updated into our GIS database. As such, our GIS database appears to be substantially out of date and does not accurately reflect the changes made to our stormwater system since 2013. Furthermore, the data stored therein does not accurately reflect the success of our inspection and maintenance efforts within this reporting year.

When we queried our stormwater inventory, the total number of major outfalls and pump stations do not show changes we know have occurred in the past reporting year. For example, only 24 major outfalls show up in our data when anecdotally we know of 4 new major outfalls that have completed construction in Year 5. Similarly, our GIS database reports we have 15 pump stations when we know we have over 25 pump stations in operation. In order to more accurately reflect the actual status of our system, in this report we listed the number of major outfalls and of pump stations based on anecdotal data obtained from the Public Works and Capital Improvement Program project managers who had projects completed during the reporting year. We also verified the overall cleaning frequency of the entire system using the invoices received from our cleaning contractor. In the coming year we will be working with the newly hired GIS Manager to ensure we have an accurate and more up-to-date inventory of our stormwater GIS database so we can rely solely on the GIS data queried for our report.

Last reporting year Operations increased the inspection and maintenance frequency of the entire stormwater system from once every three years to once every year, taking into account the cleaning frequencies for each structure as specified by our NPDES permit. This reporting year Operations worked diligently to meet that frequency. While we did not meet the cleaning frequencies for major outfalls, we successfully cleaned 80% of the system with substantial increases in the inspection and maintenance frequency of each structure type as observed in the report. This represents a substantial improvement from previous reporting years, including Year 4.

Attachment 2 NPDES Annual Report Cycle 3, Year 5

## Part VI.B.2 Evaluation of the SWMP Have stormwater pollutant loadings discharged from the MS4 decreased? Why not?

Per an Interlocal Agreement between Miami-Dade County and the City of Miami Beach, the County regularly collects water quality samples on behalf of the City and annually produces a Surface Water Quality Discussion and Analysis report. Per the report, the Annual Geometric Mean of stormwater pollutant loadings for the Southern North Bay region, the area corresponding to the City of Miami Beach's stormwater discharges, in this reporting year measured as follows:

- Chlorophyll-a 1.1 ug/l. Chlorophyll-a levels decreased by 0.15 ug/l since 2015 and met the established sampling limits of 1.1 ug/l.
- Total nitrogen (TN) -0.29 mg/l. TN levels increased by 0.058 mg/l since 2015 but remained within the established sampling limits of 0.29 mg/l.
- Total phosphorous (TP) -0.01 mg/l. TP levels increased by 0.001 since 2015 but remained within the established sampling limits of 0.01 mg/l.

The City of Miami Beach MS4 discharges into Biscayne Bay, as well as Indian Creek Collins Canal and other Biscayne Bay tributaries. However, the closest sampling stations to Miami Beach are BB14, BB17 and BB24, all of which are located in the center of Biscayne Bay more than a couple hundred feet off our shores. By the time water from our system reaches the existing sampling stations, it is substantially diluted by the movement of surface water through currents and tides that its pollutant concentrations do not accurately represent pollutant loadings from our system.

Based on the results of this report, which show the Southern North Bay region is in compliance for chlorophyll-a, total nitrogen and total phosphorous, the County is not proposing any changes to the existing monitoring plan at this time. However, since 2014, the City has been working with the County on executing a second Interlocal Agreement with the County to expand the sampling program by adding stations closer to and within the Miami Beach waterways. Data from such an expanded sampling program will give the City better insight into the quality of our waterways so we can determine what, if any, pollutants we need to target more aggressively as part of our SWMP.

## Which components of the SWMP are working well and are effective in reducing stormwater pollutant loadings? Why are they effective?

The components of the City of Miami Beach's Stormwater Management Program that are working well and are effective in reducing stormwater pollutant loadings include:

- 1. Structural Controls and Stormwater Collection System Operation
  - a. This reporting year the City substantially increased the maintenance and inspection frequency of our stormwater system, completing cleaning of 80% of the stormwater system. Additionally, the City acquired three new vacuum trucks, two

of which are dedicated to stormwater maintenance activities and allowed the City to increase frequency of pump station cleaning in higher density/heavier pollutant loading areas from quarterly to monthly.

## 2. Flood Control Projects

a. The City is in the process of upgrading its aging stormwater infrastructure through an aggressive program that includes pump stations, tide flex valves, swale reclamation and other improvements. In the design of these flood management projects, the City is incorporating innovative stormwater treatment strategies to meet or exceed current Environmental Resource Permit rules of the South Florida Water Management District, including a three-step treatment process that removes large floatables, oils and grease, and total suspended solids prior to discharge. The City is also leveraging its stormwater infrastructure program to educate the public on stormwater issues.

## 3. Illicit Discharges and Improper Disposal

- a. The City completed \$2.8 million in sanitary sewer system repairs that will reduce cross-contamination associated with the City's aging infrastructure and improve the quality of our stormwater discharges. This substantive rehabilitation work conducted as part of the City's Second Cycle Sanitary Sewer Evaluation Survey is detailed in a report titled Phase III Implementation and Completion of Corrective Action Plan Final Rehabilitation Report.
- b. This reporting year, the City maintained a waterway cleaning frequency of three times per week, removing nearly 100,000 pounds of debris from our waterways in the reporting year.
- c. The City added an Environmental review and sign-off required for all public and private projects to ensure proper sediment and erosion controls are included in all project plans. As part of this review, the Environment and Sustainability Department also makes recommendations on how green infrastructure can be incorporated to improve stormwater quality.
- d. The City created a proactive grease inspection program with a dedicated City grease inspector that works in coordination with the County's grease program to reduce the potential for SSOs. The City also hired two new stormwater inspectors and a third-party environmental inspector to proactively inspect the city, focused on reducing illicit discharges into our stormwater system. Furthermore, the Environment and Sustainability Department trained 35 project managers from various departments on environmental permitting and how to identify/report environmental/stormwater violations and trained key Public Works staff and the contractors that are constructing the majority of their projects on how to prevent environmental/stormwater violations.

## 4. Public Reporting

a. The Environment and Sustainability Department in conjunction with the Communications Department, works diligently to inform and educate the public regarding stormwater issues and BMPs. The City's public reporting program uses

Attachment 2 NPDES Annual Report Cycle 3, Year 5

various communication mediums, including MBTV programming, MB Magazine articles, the City's website, e-newsletters, social media, and educational events, to reach the wide variety of audience groups that live in or visit the area. This reporting year the City launched an anti-litter campaign that has been extremely successful at reducing litter citywide.

b. The Environment and Sustainability Department has successfully increased attendance at its bi-annual household hazardous waste collection events and reduced the quantity of household hazardous waste that is improperly or disposed throughout the City.

## Which components of the SWMP are not working well and need to be revised to make them more effective in reducing stormwater pollutant loadings?

All elements of the City's SWMP work on some level to reduce stormwater pollutant loadings; however, the City has identified room for improvement in several areas and will work to address them in the coming reporting year. Additionally, in the coming reporting year, the City will be engaging stakeholders in a "Walk the Waterbody" to identify areas in which we can improve our stormwater management, as well as a third-party technical expert to conduct a full analysis of our SWMP to provide a report card of all of its elements.

## 1. Structural Controls and Stormwater Collection System Operation

a. The Public Works Department, GIS Division is responsible updating the City's MS4 inventory using as-built plans upon project final completion. However, the current process for updating the GIS database is not current with the completion and operation of individual structures. This limits City staff's knowledge regarding the configuration of the system which is critical in making management, operation, and enforcement decisions. As such, the City will be working to update our GIS database and associated processes to improve the speed at which this database is updated to reflect real-time conditions.

## 2. Illicit Discharges and Improper Disposal

- a. The Public Works Department and the Capital Improvements Program Department staff manage and inspect public construction projects throughout the City. As we continue the implementation of our aggressive sea level rise adaptation plan, these Departments will manage an increased number of projects. Therefore, in the next reporting year, the City will be hiring two new full-time environmental inspectors to oversee environmental regulatory compliance on construction sites, focused on proactively monitoring the City and preventing stormwater violations such as construction site run-off. Additionally, the City will be updating construction site inspection SOPs and training inspectors in the Building, Public Works, CIP and Environmental Departments on the revised SOPs for identifying, reporting and responding to environmental/stormwater violations.
- b. The Public Works Department, Right-of-Way Division, the Environment and Sustainability Department and the Building Department, Code Compliance

Attachment 2 NPDES Annual Report Cycle 3, Year 5

Division are responsible for conducting proactive and reactive inspections to detect, record, and address illicit discharges and improper disposal into the MS4. Their staff is regularly trained in identifying and reporting illicit discharges and improper disposal. However, the remaining staff in these departments remains an untapped asset in identifying and reporting these violations. In the next reporting year, the City will be training all field personnel and will develop an online training module that is required for all City staff so they are also receiving regular NPDES training. Additionally, the City will be training all plan reviewers on how to properly confirm adequate sediment and erosion control measures are shown on public and private project plans.

## Which components of the SWMP do no contribute to reducing stormwater pollutant loads and could be revised or eliminated, and why?

- 1. Municipal Waste Treatment, Storage, or Disposal Facilities Not Covered by an NPDES Stormwater Permit The City of Miami Beach does not have any municipal waste treatment sites. For this reporting year, the City included the Green Waste Facility (2800 Meridian Avenue). This facility is a transfer site for yard waste. There are no drainage structures within this facility thus; it has neither a positive or negative impact on the City's MS4. Please advise if it should be included as an existing facility.
- 2. Industrial and High-Risk Runoff. There are no existing high risk facilities in the City's jurisdiction. The City will continue to monitor; however, Part III.A.8.b could be reduced to every four years.

Is the monitoring program providing data that can be used to assess the effectiveness of the SWMP in reducing stormwater pollutant loadings, assess the effectiveness of specific BMPs, and determine whether stormwater retrofitting projects should be prioritized for implementation?

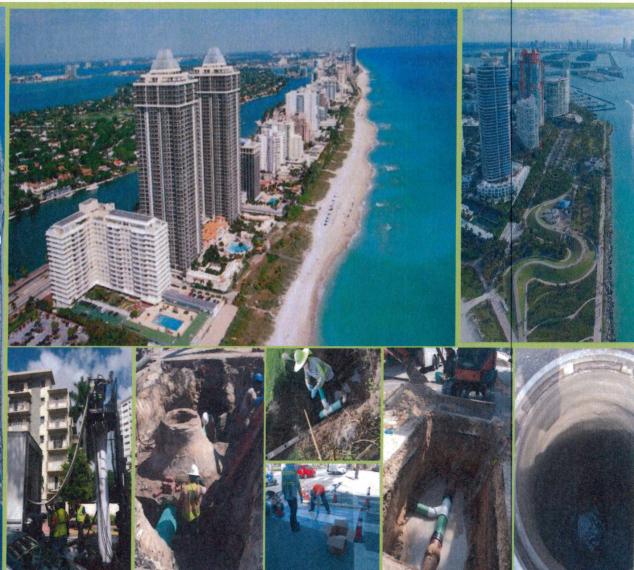
The City of Miami Beach has signed an Interlocal Agreement with Miami-Dade County providing for Miami-Dade County to conduct surface water quality monitoring on behalf of the City. Miami-Dade County produces on an annual basis a Surface Water Quality Discussion and Analysis Report, which summarizes the data generated for the reporting year by the monitoring program. Miami-Dade County subdivides the County into different monitoring regions that do not necessarily coincide with municipal boundaries. The City's MS4 discharges into the Southern North Bay region of Biscayne Bay. An increase or decrease in the pollutant loadings within the region could result from the successes or failures of one or more of the region's copermittees. As such, the City is in the process of contracting the County to conduct sampling at additional locations closer to our city limits and within our waterways. The City anticipates that the results of these additional sampling points will fill in data gaps in the County's existing program so we can better evaluate the success of our Stormwater Management Program and identify trouble locations that are in need of more targeted action. In the interim, the City is conducting regular inspections of the discharge points for drainage basins in our more heavily trafficked commercial districts to visually monitor the conditions in these areas.

Second Cycle Sanitary Sewer Evaluation Survey

Phase III:
Implementation
& Completion
Of Corrective
Action Plan

Final Rehabilitation Report

October 2016



THE CITY OF

MIAMI BEACH

**PUBLIC WORKS DEPARTMENT** 





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Appendix A	Basin Maps with Manhole ID's
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## Introduction

#### 1.1 Background

The City of Miami Beach (City) is a Volume Sewer Customer (VSC) of the Miami-Dade County Water and Sewer Department (WASD). As such, the City must comply with the requirements set forth in the Volume Sewer Customer Ordinance (VSCO) of the Miami-Dade County Code which applies to all VSC's of the WASD sewer system. This ordinance is enforced by the Miami-Dade Department of Regulatory and Economic Resources (RER), and stipulates that all utilities and non-utilities needed to complete Phase I (Preliminary Sewer System Survey) and Phase II (Sewer System Analysis and Corrective Action Plan) of the Second Sanitary Sewer Evaluation Survey (SSES) Cycle by November 12, 2012. The Phase I and Phase II report was submitted during that time by the City as required, and, as per County code, the City was tasked with correcting any and all deficiencies outlined in the report by November 12, 2016. Means of correcting these deficiencies, including reducing I&I and bringing any non-compliant sewer basins into compliance, were presented in a Corrective Action Plan during Phase I and Phase II.

This report presents the Second Cycle Phase III implementation and completion of the required corrective action plan, and the testing performed to bring any and all non-compliant basins into compliance.

As part of the Miami-Dade County code, the City must not exceed the local regulatory criterion of five thousand (5,000) gallons per inch pipe diameter per day per mile of pipe and laterals (GPD/IDM). The previous Phase I and Phase II report includes a 2012 flow study performed by the City which highlights all but nine (9) basins/sub-basins passing this criterion during the current Second Cycle of the SSES program. A summary of this flow monitoring study showing all compliant and (at the time) non-compliant basins can be seen in **Table 2.1**.

An intensive Corrective Action Plan was developed as part of the Phase I and Phase II report, and the City was tasked with carrying out this plan in order to bring the nine non-compliant basins into compliance within four (4) years. The work performed in order to accomplish this (Phase III) is further described in **Section 4** of this report. Once the work was completed, additional flow monitoring was conducted in order to show that all remaining basins had passed the County criterion.

The collected flow data is summarized and tabulated within **Section 6** and **Appendix B** of this report. This data shows the results after the Corrective Action Plan had been





completed and it quantifies the infiltration amounts in each of the previously non-compliant sewer basins. The results highlight all sanitary sewer basins within the City being compliant with RER's maximum allowable infiltration criterion of 5,000 GPD/IDM.

The City of Miami Beach has been proactive in its approach to mitigating I&I into the sanitary sewer since 1993, and, as has been demonstrated throughout the years, will continue its efforts in being a leader in this endeavor for future SSES cycles. Continuously working to reduce I&I in the sanitary sewer system will continue to be a top priority for the City of Miami Beach's Public Works Department.





## Sanitary Sewer System

## 2.1 Compliant & Non-compliant Sewer Basins (2012)

The City of Miami Beach's sanitary sewer system is comprised of 33 basins/sub-basins, encompassing approximately 144 miles of gravity sewers, over 20 miles of force main, and 23 wastewater pump stations. During the 2012 flow monitoring study, it was determined that 24 of 33 basins were in compliance with RER's maximum allowable I&I criterion of 5,000 GPD/IDM. The remaining 9 basins were found to be non-compliant with this criterion. The table displaying this data can be seen below in **Table 2.1**:

**Table 2.1 Summary of Second Cycle SSES Phase II Results (2012)** 

		2012							
Basin or Sub-	General Information				I/	I Information			
Basin	PS	Кеу МН	Number of MH	IDM	Night Flow (GPD)	Night Usage (GPD)	Infiltration (GPD/IDM)	ADF (Dry) (MGD)	ADF (Wet) (MGD)
1	1			534.42	3,838,483	1,370,597	4,618	5.42	8.06
1A		138B	98	66.03	24,004	0	364	6.17	0.51
1B		173	296	206.12	1,763,279	401,678	6,606	2.10	3.38
1C		175A	269	262.27	2,051,200	968,919	4,127	3.16	4.17
2	2	PS1	20	9.95	7,394	0	743	0.12	0.40
4	4	PS1	38	28.92	4,815	0	166	0.10	0.22
5	5	PS1	34	24.89	10,716	0	431	0.03	0.35
6	6	PS10	22	16.77	2,302	0	137	0.03	0.23
7	7	PS10	34	30.9	1,983	0	64	0.03	0.07
8	8	PS10	25	20.65	3,615	0	175	0.08	0.53
10	10	400D	110	145.65	203,712	4,511	1,368	0.46	1.04
11	11	324E	136	77.74	1,158,947	440,033	9,248	1.70	2.63
13	13	PS13	30	23.32	3,182	0	136	N/A	0.01
14	14	PS14	47	30.67	9,640	0	314	N/A	0.03
15	15			187.71	354,510	279,443	400	0.56	0.90
15A		2006(N)	123	95.34	170,760	150,601	211	0.29	0.44
15B		2006 (W)	116	92.37	183,750	128,842	594	0.27	0.46





		2012							
Basin or	General Information			deficial information // information					
Sub- Basin	PS	Кеу МН	Number of MH	IDM	Night Flow (GPD)	Night Usage (GPD)	Infiltration (GPD/IDM)	ADF (Dry) (MGD)	ADF (Wet) (MGD)
18	18	PS18	31	21.01	2,318	0	110	0.06	0.14
19	19	30940	138	69.67	271,784	148,336	1,772	0.32	0.99
21	21	4000	168	169.98	863,698	187,474	3,978	0.86	1.42
22	22			85.15	268,069	70,745	2,317	0.46	ı
22A		3945D	49	39.71	164,769	41,738	3,098	0.17	0.25
22B		3944	61	45.44	103,300	29,007	1,635	0.29	-
23	23	3601B	174	138.04	728,231	248,085	3,478	1.02	1.14
24	24			153.96	352,768	201,551	982	0.33	0.57
24A		2803	65	92.2	224,435	115,273	1,184	0.26	0.32
24B		2701	61	61.76	128,333	86,266	681	0.06	0.25
27	27			41.38	1,040,031	105,723	22,579	1.21	1.37
27A		3401	48	20.58	407,096	8,528	19,124	0.52	0.56
27B		3024B	54	20.8	637,935	97,176	25,998	0.69	0.81
28	28			633.8	4,707,160	1,235,263	5,988	0.00	0.00
28A		-	141	72.78	89,561	0	1,231	0.12	0.32
28B		742	68	57.93	806,572	88,321	12,399	0.86	1.05
28C		623 & 513C	503	439.6	1,498,363	435,744	2,756	1.91	2.43
28D		592C	301	63.49	2,312,664	711,198	25,224	2.34	4.07
29	29	3144	56	24.92	654,256	68,610	23,501	0.72	0.85
30	30	PS30	7	2.28	1,079	0	473	0.01	0.03
31	31			95.51	1,374,289	225,393	12,029	1.53	2.36
31A		10D	<b>7</b> 5	38.6	707,593	145,061	14,573	0.79	1.21
31B		511	141	56.91	666,696	80,315	10,302	0.75	1.15

Given the above results, 9 sewer basins were above 5,000 GPD/IDM in I&I flow monitoring (highlighted). These sewer basins, shown in **Figure 2.1** and in order of priority, are: 27B, 28D, 29, 27A, 31A, 28B, 31B, 11, and 1B. Between 2014 and 2016, the City pursued and implemented an intensive Corrective Action Plan in order to mitigate I&I in these basins and succeed in bringing them into compliance and under the 5,000 GPD/IDM flow numbers. The new flow monitoring results confirming this can be found in **Table 6.2.** 





Figure 2.1 Map of Priority Basins







## **Best Management Practices & Strategies**

## 3.1 Strategies to Implement

The 2012 Phase II report laid out a Best Management Practice (BMP) Plan in order to bring the nine formerly non-compliant basins into compliance. This BMP was based on historical background of the City's sewer rehabilitation programs, associated costs, and implementing innovative methods that have been proven to reduce I/I in sanitary sewer networks. These methods include:

- Perform cleaning & CCTV of all mainline sewer pipelines within each basin to identify I/I and/or structural issues
- Replacement of pipes with severe structural defects
- Targeted point repairs for locations where significant I/I is identified
- CIPP lining of older clay sewer pipes in order to eliminate joint infiltration
- Sectional liners targeted at appropriate areas with mainline infiltration; or to cover possibly abandoned lateral openings that are contributing large amounts of I/I
- Manhole rehabilitation with cementitious lining
- T-liner lining for clay laterals that are in poor shape, or have significant I/I observed
- Ensure all sanitary sewer manholes have "rain catch" guards in order to prevent inflow from storm water runoff

## 3.2 Severe Infiltration Basins (27A, 27B, 28B, 28D, 29, 31A, and 31B)

The aforementioned basins were identified as having "severe" amounts of I/I during the 2012 flow study. Severe I/I was defined to be greater than 10,000 GPD/IDM. These basins received precedence during the Phase III rehabilitation stages. All possible strategies outlined in **Section 3.1** were implemented in these basins in order to bring the I/I levels to the RER acceptable flow numbers lower than 5,000 GPD/IDM.

#### 3.3 Moderate Infiltration Basins (1B and 11)

These two basins were identified as having "moderate" amounts of I/I, or less than 10,000 GPD/IDM. Although these basins had much less I/I in comparison to the basins in **Section 3.2**, the City of Miami Beach still took a proactive approach and implemented all strategies outlined in **Section 3.1** for these two basins.

The rehabilitation work completed in all basins is described in more detail in **Section 4.** 





## Rehabilitation Work Performed

The BMP & Strategies outlined in **Section 3** were implemented between 2014 and 2016 in order to bring each of the nine basins into compliance. The City of Miami Beach contracted and managed EnviroWaste Services Group to carry out these strategies. This section will outline specific work done for each basin, as well as associated costs for each. **Table 4.1** summarizes all rehabilitation work completed during Phase III of the project.

**Table 4.1 Summary of Rehabilitation Work Performed** 

	Spot Repairs	T-Liners	Sectional Liners	CIPP Lining	Manhole Rehabilitation
Basin	Completed	Completed	Completed	Footage	Completed
11	80	0	2	3,176	45
27B	0	0	11	1,763	35
27A	3	0	40	4,387	9
31A	33	0	10	255	38
28B	50	0	4	2,245	18
28D	36	3	24	3,800	99
29	9	1	20	775	13
31B	35	14	12	2,685	50
1B	101	0	31	2,662	66
TOTAL	347	18	154	21,748	373





#### 4.1 Basin 27B – Rehabilitation Work

Basin 27B, shown in **Figure 4.1**, encompasses the area approximately comprising of Collins Avenue between 45<sup>th</sup> and 54<sup>th</sup> Streets. The area is mostly made up of high-density condominium and hotel buildings, including an active nightlife with the inclusion of nightclubs, bars, and restaurants. This basin contains approximately 9,000 LF of sanitary sewer mainline pipe. All of the mainline pipe was cleaned and televised, and sources of I/I were identified. Much of the work in this basin was focused on CIPP lining of clay sewer main pipelines, use of sectional liners to perform more localized trenchless repairs on large holes found in pipelines (two large ones were found in particular), and also covering up abandoned lateral openings which displayed significant I/I. A large amount of manhole rehabilitations were performed, along with replacement of "rain catch" covers in manholes. Associated costs for the work performed in this basin are shown in **Table 4.2**.

Table 4.2 Rehabilitation Work & Costs – Basin 27B

Rehabilitation Type	Quantity	Cost
Cleaning & CCTV	9,000 LF	\$14,850
CIPP Lining	1,763 LF	\$99,732
Sectional Liners	11	\$39,050
Manhole Rehabilitation	35	\$28,875
	TOTAL BASIN COST	\$182,507





Figure 4.1 Basin 27B







#### 4.2 Basin 28D – Rehabilitation Work

Basin 28D, shown in **Figure 4.2**, is the most dense sewer basin in terms of both population and building densities. It encompasses the area approximately comprising of Collins Avenue and Indian Creek Drive, between 23<sup>rd</sup> and 45<sup>th</sup> Streets. It also includes an area roughly bounded by Pine Tree Drive and Flamingo Drive, between 23<sup>rd</sup> & 29<sup>th</sup> Streets. The area is mostly made up of high-density condominiums and high-rise hotel buildings, including an active nightlife with the inclusion of nightclubs, restaurants, and bars. In addition, there is also a single-family residential area and mixed-use commercial area. This basin contains approximately 30,000 LF of sanitary sewer mainline pipe. All of the mainline pipe was cleaned and televised, and sources of I/I were identified. Rehabilitation in this basin consisted of CIPP lining of clay pipelines, targeted spot repairs/pipe replacement, sectional liners, T-liners, manhole rehabilitation, and "rain catch" guard installations in manholes. Associated costs for the work performed in this basin are shown in **Table 4.3**.

Table 4.3 Rehabilitation Work & Costs – Basin 28D

Rehabilitation Type	Quantity	Cost
Cleaning & CCTV	30,000 LF	\$49,500
CIPP Lining	3,800 LF	\$182,259
Sectional Liners	24	\$90,750
Manhole Rehabilitation	99	\$70,785
Point Repairs	36	\$237,600
T-Liners	3	\$13,280
	TOTAL BASIN COST	\$644,174





Figure 4.2 Basin 28D







#### 4.3 Basin 29 – Rehabilitation Work

Basin 29, shown in **Figure 4.3**, encompasses the area approximately comprising of Collins Avenue and Indian Creek Drive, between 59<sup>th</sup> and 65<sup>th</sup> Streets. It also includes Allison Island, just west of Indian Creek. The area is mostly made up of high-density condominium and hotel buildings, with an active commercial sector as well. Allison Island is mostly comprised of single-family residential housing and a private development of luxury townhomes/condos known as Aqua. This basin contains approximately 11,000 LF of sanitary sewer mainline pipe. All of the mainline pipe was cleaned and televised, along with several suspect laterals, and sources of I/I were identified. Rehabilitation in this basin consisted mostly of targeted spot repairs/pipe replacement, and sectional liners covering up a large number of abandoned lateral openings with a lot of contributing I/I. T-liners, manhole rehabilitation, and "rain catch" guard installations in manholes were also used to mitigate I/I in this basin. Perhaps the largest rehabilitation effort in this basin was a trenchless repair of an approximately 10foot section of 12-inch pipe which was completely collapsed and open to the surrounding groundwater. This was found in the area of 63<sup>rd</sup> St and Indian Creek Drive. This pipe, at approximately 9-feet in depth, was repaired using a trenchless structural liner and infiltration due to groundwater was subsequently stopped. Associated costs for the work performed are shown in **Table 4.4**.

Table 4.4 Rehabilitation Work & Costs – Basin 29

Rehabilitation Type	Quantity	Cost
Cleaning & CCTV	11,000 LF	\$18,150
CIPP Lining	775 LF	\$43,020
Sectional Liners	20	\$82,170
Manhole Rehabilitation	13	\$9,295
Point Repairs	9	\$59,400
T-Liners	1	\$4,427
	TOTAL BASIN COST	\$216,462





Figure 4.3 Basin 29







#### 4.4 Basin 27A – Rehabilitation Work

Basin 27A, shown in **Figure 4.4**, encompasses the area approximately comprising of Collins Avenue between 54<sup>th</sup> and 59<sup>th</sup> Streets. The area is mostly made up of high-density condominium and hotel buildings. This basin contains approximately 8,000 LF of sanitary sewer mainline pipe. All of the mainline pipe was cleaned and televised, along with several suspect laterals, and sources of I/I were identified. Rehabilitation in this basin consisted mostly of CIPP lining of clay pipe, and sectional liners covering up a large number of abandoned lateral openings with a lot of contributing I/I. Targeted spot repairs, manhole rehabilitation, and "rain catch" guard installations in manholes were also used to mitigate I/I in this basin. Associated costs for the work performed are shown in **Table 4.5**.

Table 4.5 Rehabilitation Work & Costs – Basin 27A

Rehabilitation Type	Quantity	Cost
Cleaning & CCTV	8,000 LF	\$13,200
CIPP Lining	4,387 LF	\$233,459
Sectional Liners	40	\$168,190
Manhole Rehabilitation	9	\$6,435
Point Repairs	3	\$19,800
	TOTAL BASIN COST	\$441,084





Figure 4.4 Basin 27A







#### 4.5 Basin 31A – Rehabilitation Work

The South of 5<sup>th</sup> Street neighborhood, or better known as South Pointe, contains two of our priority sewer basins. Basin 31A, shown in **Figure 4.5**, takes up most of the area east of Washington Avenue, and also south of 1<sup>st</sup> Street. The area is mostly made up of luxury condominiums and townhomes, with a large sector of commercial buildings and hotels. This basin contains approximately 15,000 LF of sanitary sewer mainline pipe. All of the mainline pipe was cleaned and televised, along with several suspect laterals, and sources of I/I were identified. Rehabilitation in this basin consisted mostly of CIPP lining of clay pipe, targeted spot repairs, sectional liners, manhole rehabilitation, and "rain catch" guard installations in manholes to mitigate I/I in this basin. The rain catch guards were especially important in this basin as much of the sewer mainline runs beneath valley gutters designed to carry storm runoff. Associated costs for the work performed are shown in **Table 4.6**.

Table 4.6 Rehabilitation Work & Costs – Basin 31A

Rehabilitation Type	Quantity	Cost	
Cleaning & CCTV	15,000 LF	\$24,750	
CIPP Lining	255 LF	\$10,747	
Sectional Liners	10	\$36,190	
Manhole Rehabilitation	38	\$27,170	
Point Repairs	33	\$217,800	
	TOTAL BASIN COST	\$316,657	





Figure 4.5 Basin 31A







#### 4.6 Basin 28B – Rehabilitation Work

Basin 28B, shown in **Figure 4.6**, lies in the Nautilus neighborhood of the City, and is comprised of mostly single-family residential homes, with some commercial space at the south end of the basin. It is roughly bounded by 41<sup>st</sup> and 48<sup>th</sup> St Streets, between Meridian and Michigan Avenues. This basin contains approximately 15,000 LF of sanitary sewer mainline pipe, most of which resides in easements behind the single-family homes. During the course of the project, the City was able to locate and access sewer manholes which hadn't been located in years. All of the mainline pipe was cleaned and televised, along with several suspect laterals, and key sources of I/I were identified. Much of this I/I was found to be located in the deeper 12-inch pipe running south along Meridian Avenue. Rehabilitation in this basin consisted mostly of targeted spot repairs, sectional liners, CIPP lining of clay pipes, manhole rehabilitation, and "rain catch" guard installations in manholes to mitigate I/I in this basin. Associated costs for the work performed are shown in **Table 4.7**.

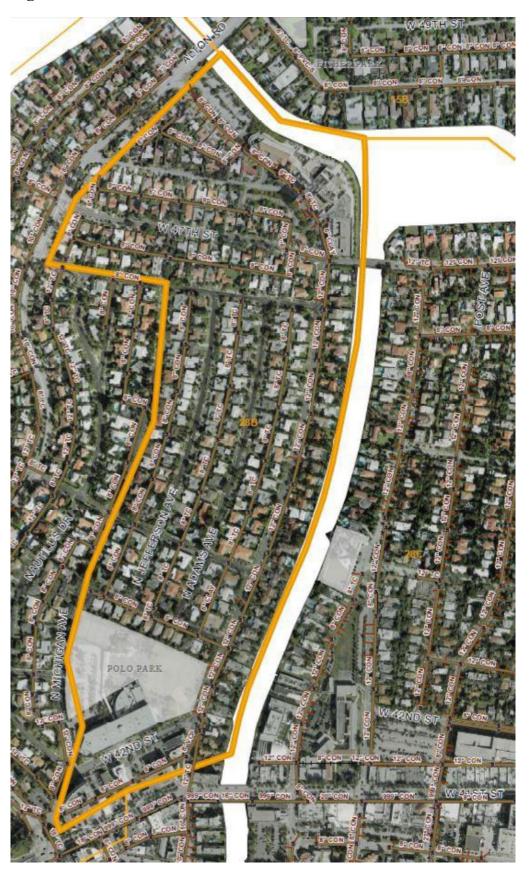
Table 4.7 Rehabilitation Work & Costs – Basin 28B

Rehabilitation Type	Quantity	Cost	
Cleaning & CCTV	15,000 LF	\$24,750	
CIPP Lining	2,245 LF	\$83,556	
Sectional Liners	4	\$12,430	
Manhole Rehabilitation	18	\$12,870	
Point Repairs	50	\$330,000	
	TOTAL BASIN COST	\$463,606	





Figure 4.6 Basin 28B







#### 4.7 Basin 31B – Rehabilitation Work

Basin 31B, shown in **Figure 4.7**, makes up the other half of the South Pointe neighborhood sewer basins (the other being 31A). It takes up most of the area west of Washington Avenue and south of 5<sup>th</sup> Street, with a portion extending to 7<sup>th</sup> Street between Jefferson and Meridian Avenues. The neighborhood consists of mostly residential luxury townhomes and condominiums, with an extended section of commercial zones. This basin contains approximately 15,000 LF of sanitary sewer mainline pipe. All of the mainline pipe was cleaned and televised, along with several suspect laterals, and key sources of I/I were identified. Among other areas, much of this I/I was found to be located along a section of 15-inch pipe running south along Meridian Avenue between 7<sup>th</sup> and 3<sup>rd</sup> Streets. This pipe is approximately 10-feet in depth and contained a lot of cracked lateral joints which were resolved by use of the T-liner. Further rehabilitation in this basin consisted mostly of targeted spot repairs, sectional liners, CIPP lining of clay pipes, manhole rehabilitation, and "rain catch" guard installations in manholes to mitigate I/I in this basin. Associated costs for the work performed are shown in **Table 4.8**.

Table 4.8 Rehabilitation Work & Costs – Basin 31B

Rehabilitation Type	Quantity	Cost	
Cleaning & CCTV	15,000 LF	\$24,750	
CIPP Lining	2,685 LF	\$97,394	
Sectional Liners	12	\$47,630	
Manhole Rehabilitation	50	\$35,750	
Point Repairs	35	\$231,000	
T-Liners	14 \$61,985		
	TOTAL BASIN COST	\$488,059	





Figure 4.7 Basin 31B







#### 4.8 Basin 11 – Rehabilitation Work

Basin 11, shown in **Figure 4.8**, is located in a relatively dense area of the City Center neighborhood. The basin consists of a fair mix between residential condominiums, luxury high-rise hotels, and commercial space, with a large portion taken up by the Miami Beach Convention Center. This basin contains approximately 20,000 LF of sanitary sewer mainline pipe, and is roughly bounded by Collins Avenue and Convention Center Drive, between 15<sup>th</sup> and 23<sup>rd</sup> Streets. All of the mainline pipe was cleaned and televised, along with several suspect laterals, and key sources of I/I were identified. Rehabilitation in this basin consisted mostly of targeted spot repairs, sectional liners, CIPP lining of clay pipes, manhole rehabilitation, and "rain catch" guard installations in manholes to mitigate I/I in this basin. Associated costs for the work performed are shown in **Table 4.9**.

Table 4.9 Rehabilitation Work & Costs – Basin 11

Rehabilitation Type	Quantity	Cost	
Cleaning & CCTV	20,000 LF	\$33,000	
CIPP Lining	3,176 LF \$161,601		
Sectional Liners	2	\$5,500	
Manhole Rehabilitation	45	\$32,175	
Point Repairs	80	\$528,000	
	TOTAL BASIN COST	\$760,276	





Figure 4.8 Basin 11







#### 4.9 Basin 1B – Rehabilitation Work

Basin 1B, shown in **Figure 4.9**, is by far the largest basin for Phase III in terms of area and also total linear footage of pipeline. Located in the Flamingo Park neighborhood and bounded by Meridian Avenue and the Bay, between 5<sup>th</sup> and 20<sup>th</sup> Streets, the basin consists of a large mix of high-rise residential condominium towers, single-family homes, and large sectors of commercial space. The City's busiest roadway, Alton Road is located within this basin. This basin contains approximately 59,000 LF of sanitary sewer mainline pipe. All of the mainline pipe was cleaned and televised, along with several suspect laterals, and key sources of I/I were identified. Rehabilitation in this basin consisted of a large mix of targeted spot repairs, pipe replacements, sectional liners, CIPP lining of clay pipes, manhole rehabilitation, and "rain catch" guard installations in manholes to mitigate I/I in this basin. Associated costs for the work performed are shown in **Table 4.10**.

Table 4.10 Rehabilitation Work & Costs – Basin 1B

Rehabilitation Type	Quantity	Cost	
Cleaning & CCTV	59,000 LF	\$97,350	
CIPP Lining	2,662 LF	\$113,608	
Sectional Liners	31	\$93,610	
Manhole Rehabilitation	66	\$47,190	
Point Repairs	101	\$666,600	
	TOTAL BASIN COST	\$1,018,358	





Figure 4.9 Basin 1B







## Flow Monitoring Data Collection Plan

#### 5.1 Overview

Once the rehabilitation work described in **Section 4** was completed for each basin, a comprehensive flow monitoring study needed to take place. As per RER regulations, the study needed to be conducted during the "wet season" which is June 1 through November 30. The intent of the study is to determine current I/I levels for each basin and verify that they are under the maximum allowable criterion of 5,000 GPD/IDM.

In order to obtain accurate flow data, the "key" manholes were identified for each basin. The key manhole is the sanitary sewer manhole where all flow present in the basin will pass through. It is from these manholes where each necessary flow meter was placed to acquire pertinent flow data. The key manholes can be seen in the detailed basin maps in **Appendix A**.

The Avanti Company was subcontracted by EnviroWaste to lead the flow monitoring investigation during Phase III.

#### 5.2 Equipment

Hach flow equipment was used in order to obtain high-quality and accurate flow data. By making use of their Data Delivery Services platform, we were able to read and analyze flow data in almost real-time fashion wirelessly. This not only gave us the ability to read incoming flow data every day of our flow monitoring period, but it also allowed us to better identify maintenance issues with the equipment more expeditiously so that we can have them resolved rapidly. The equipment was installed, calibrated, and maintained throughout the flow monitoring period by EnviroWaste.

Flow data for each basin was captured using several of Hach's Flo-Dar Av Sensor units in combination with FL900 Series flow loggers. These highly accurate flow devices are non-contact and are therefore less prone to inaccurate velocity readings due to solids and other debris.

## 5.3 Night Flow

Night flows are measured at the key manholes of each sewer basin/sub-basin between the hours of 1:00am and 5:00am. This is the timeframe when, theoretically, wastewater flows are at a minimum and most of the flow is infiltration. This is the case in much of the City, and we therefore assumed a "worst case scenario" for these areas and deemed water usage to be zero. This means that <u>all</u> wastewater flowing to these basins was





deemed to be I/I. This conservative assumption was used in three of the nine priority basins.

Six of our priority sewer basins lie within areas of the City with high population densities and where there is a greater amount of nighttime activity, particularly toward the eastern tourist areas in and around Collins Avenue. These six basins are 11, 28D, 27A, 27B, 29, and 31B. Areas of Miami Beach where nighttime activity is relatively high (as compared with other parts of the County) can play a significant role with the associated night usage when conducting wastewater flow monitoring. This includes areas with nightclubs, bars, restaurants, and tourist hotspots that are open at all hours of the night. In order to account for metered water consumption during this time, the City was able to extract water consumption data for these four basins. This data can be found in **Appendix D.** The results were normalized against the measured wastewater hydrographs so that only a small portion of the average is considered night usage, and then were deducted from the measured wastewater flow in order to obtain more accurate I/I data.

The night flow I/I results for each sewer basin were converted into GPD/IDM units, and were compared with RER's maximum criterion of 5,000 GPD/IDM. These results are presented in **Table 6.2** of this report.





## Flow Monitoring Analysis & Results - 2016

## 6.1 Flow Monitoring Periods

All flow monitoring devices were installed and recorded data from July 2016 through September 2016. As per RER requirements, each basin needed to be under the maximum allowable I/I criterion for three (3) consecutive night flows. The time periods being used for each basin/sub-basin are summarized in **Table 6.1**.

**Table 6.1 Flow Monitoring Time Periods** 

Basin	Start Date/Time	Finish Date/Time		
27B	9/18/16, 1:00am	9/20/16, 5:00am		
28D	9/21/16, 1:00am	9/23/16, 5:00am		
29	9/14/16, 1:00am	9/16/16, 5:00am		
27A	8/11/16, 1:00am	8/13/16, 5:00am		
31A	7/02/16, 1:00am	7/04/16, 5:00am		
28B	8/05/16, 1:00am	8/07/16, 5:00am		
31B	7/13/16, 1:00am	7/15/16, 5:00am		
11	7/12/16, 1:00am	7/14/16, 5:00am		
1B	7/03/16, 1:00am 7/05/16, 5:00a			





## 6.2 Flow Monitoring Results

Each basin was analyzed during the time periods described in **Section 6.1**. Night flows were recorded, computed, and then converted into GPD/IDM. The flow monitoring results are summarized in **Table 6.2**.

**Table 6.2 Summary of Second Cycle SSES Phase III Results (2016)** 

	2016								
Basin or Sub-Basin PS	General Information				I/I Information				
	Кеу МН	Number of MH	IDM	Night Flow (GPD)	Night Usage (GPD)	Infiltration (GPD/IDM)	ADF (Dry) (MGD)	ADF (Wet) (MGD)	
1B	1	SWR43457	315	206.12	560,708	0	2,720	1.01	1.18
11	11	SWR42578	134	77.74	1,021,925	875,138	1,888	1.89	1.94
27A	27	SWR42532	45	20.58	141,293	124,762	803	0.30	0.38
27B	27	SWR42400	59	20.8	782,755	684,864	4,706	1.21	1.30
28B	28	SWR42138	72	57.93	129,182	0	2,230	0.16	0.18
28D	28	SWR43214	301	63.49	2,050,474	1,761,811	4,547	3.93	4.01
29	29	SWR41599	85	24.92	371,356	256,853	4,595	0.86	0.93
31A	31	SWR43323	96	38.6	96,077	0	2,489	0.22	0.30
31B	31	SWR43321	141	56.91	418,824	267,595	2,657	0.91	0.93





## 6.3 Reductions in Infiltration/Inflow

After much construction and sewer pipe rehabilitation, the City of Miami Beach has seen a large percentage decrease in I/I for all basins. The below table summarizes percent reductions in I/I throughout the City for First Cycle and Second Cycle SSES programs.

Table 6.3 Summary of Pre and Post-Rehabilitation Results – I/I Percent Changes

	First	Cycle Infiltration R	esults	Second Cycle Infiltration Results			
Basin	2006 Infiltration (GPD/IDM)	2010 Infiltration (GPD/IDM)	Infiltration % Reduction	2012 Infiltration (GPD/IDM)	2016 Infiltration (GPD/IDM)	Infiltration % Reduction	
1A	909			364			
1B	6,614			6,606	2,720	59%	
1C	2,781			4,127			
2	1,479			743			
4	886			166			
5	545			431			
6	3,340			137			
7	1,025			64			
8	1,304			175			
10	1,344			1,368			
11	8,796	13,278	-51%	9,248	1,888	80%	
13	109			136			
14	252			314			
15A	345			211			
15B	475			594			
18	768			110			
19	11,428	8,647	24%	1,772			
21	2,729			3,978			
22A	1,016			3,098			
22B	1,343			1,635			
23	1,135			3,478			
24A	1,218			1,184			
24B	2,495			681			
27A	22,570			19,124	803 96%		
27B	21,247	17,351	18%	25,998	4,706	82%	
28A	1,577			1,231			
28B	12,184			12,399	2,230	82%	
28C	2,100			2,756			
28D	25,350	27,748	-9%	25,224	4,547	82%	
29	41,583	15,800	62%	23,501	4,595	80%	
30	2,683	·		473			
31A	13,717	5,103	63%	14,573	2,489	83%	
31B	9,677	12,573	-30%	10,302	2,657	74%	
Overall	131,800	100,501	24%	146,975	26,635	82%	





## **SSES Summary**

#### 7.1 Prior SSES Programs – Pre-RER SSES, and First Cycle (1996 – 2010)

The City of Miami Beach has always strived to remain ahead of the curve and be a leader when it comes to I/I mitigation. In 1993, prior to any County ordinance, the City began to implement its own SSES program to eliminate and/or reduce I/I into our sanitary sewer system. The City inspected approximately 488,000 LF of sewer pipes and 2,200 manholes, and identified many problem areas which needed rehabilitation work. As a result, the City committed roughly \$6.4 million towards pipe lining, point repairs, joint grouting, and manhole rehabilitation.

In 1996, the City initiated its rehabilitation program based on RER requirements, with a goal of meeting the 5,000 GPD/IDM criterion for each sewer basin. During the time period between 1996 and 2005, the City completed the following:

- Lined 300,000 LF of sanitary sewer pipes using CIPP
- Joint grouted 170 LF of sanitary sewer pipes
- Joint grouted 620 lateral connections
- Completed 180 point repairs
- Rehabilitated 320 sanitary sewer manholes
- Rehabilitated/replaced 350 sanitary sewer laterals (8,700 LF)

The City committed approximately \$23.2 million towards this work.

Between 2006 and 2010, the City focused on and completed the RER-specified Phase III Report. In 2006, the City had seven (7) non-compliant basins after conducting a flow monitoring study. Rehabilitation for these seven basins commenced in 2008 and concluded in 2010. By then, the City had spent another \$5.7 million towards its I/I mitigation effort.

Work continued into 2011 because of excessive infiltration in certain basins. This work included:

- Replacement of 110 LF of sanitary sewer mains
- Replacement of 76 sewer laterals (1,922 LF)
- Repairing 14 sewer laterals (238 LF)
- Cleaning & assessment of approximately 956,000 LF of sanitary sewer pipes
- Cleaning & assessment of approximately 3,000 LF of sewer laterals





## 7.2 Second Cycle SSES (2002 – 2016)

The Second Cycle of the SSES program began in 2002. Phase I and Phase II of this cycle was completed by 2012, by which the City had spent approximately \$620,000 in the cleaning and assessment of 4,700 LF of sewer main, flow monitoring, and the smoke testing of 533,000 LF of sewer mains.

By this point, the City identified the nine (9) non-compliant basins which were brought into compliance by 2016. Rehabilitation efforts for these basins began in 2014 and were completed in 2016. The City spent approximately \$4.4 million in its I/I mitigation, including the following rehabilitation strategies:

- Cleaning & assessment of approximately 182,000 LF of sanitary sewer mains
- CIPP lining of approximately 21,748 LF of sanitary sewer mains
- Completed 347 point repairs
- Completed 154 sectional liners
- Rehabilitated 373 sanitary sewer manholes
- Completed 18 T-liner lateral lining segments

These techniques and strategies proved to be very successful in mitigating I/I found within our sewer system, and in bringing each basin into RER compliance. Moving forward, the City of Miami Beach will continue to take a proactive approach as a leader in sanitary sewer maintenance and I/I reduction.





# **Appendix A**

Basin Maps with Manhole ID's





#### **Appendix B**

The Avanti Company Flow Reports





# MIAMIBEACH

Project:

City of Miami Beach SSES Plan B Flow Monitoring Project 1700 Convention Center Drive.

Miami Beach, FL 33139

Project Manager:

Eric Corey

The Avanti Company

22 South Lake Avenue. Avon Park, FL 33825

305-804-5940

ecorey@avanticompany.com

Julio Fojon

Contractor:

**EnviroWaste Services Group** 

18801 S. Dixie Highway

Miami, FL 33145 305-896-6859 <u>julio.fojon@envirowastesg.com</u>





#### MIAMIBEACH

Flow Basins	Maximum Allowable GPD	Calculated Average I/I	Station Status
Basin 1B - MH43457	1,030,593.60	560,706.64	Pass
Basin 11 - MH42578	388,699.20	147,974.40	Pass
Basin 27A - MH42532	102,902.40	16,531.20	Pass
Basin 27B - MH42400	103,996.80	97,891.20	Pass
Basin 28B - MH42138	289,656.00	129,182.40	Pass
Basin 28D - MH43214	317,448.00	288,662.40	Pass
Basin 29 - MH41599	124,603.20	114,508.80	Pass
Basin 31A - MH43323	159,307.20	96,076.80	Pass
Basin 31B - MH43321	284,601.60	151,228.80	Pass

Authorized by: <u>10/17/2016</u>





Flow Measurement Date(s): July 03 - July 05, 2016

MH43457 Basin 1 B Flow Data Summary:

 GPM
 GPD

 Estimated Average I/I
 389.38
 560,706.64

 Maximum Allowable I/I
 715.69
 1,030,593.60

 Station Status
 Passed

### Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 550,706.64 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

XChange
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u-track.com

ow (GPD)	984,991.46	829,918.04	796,902.28	669,845.92	641,805.16	498,796.74	442,072.44	412,606.80	394,160.19	377,530.53	370,599.39	355,652.67	341,947.11	310,673.56	296,096.75	292,472.75	294,623.04	488,864.40		
Flow (GPM) Flow (GPD)	684.02	576.33	553.40	465.17	445.70	346.39	306.99	286.53	273.72	262.17	257.36	246.98	237.46	215.75	205.62	203.11	204.60	339.49		
Instrument Date and Time Flo	7/5/2016 1:00	7/5/2016 1:15	7/5/2016 1:30	7/5/2016 1:45	7/5/2016 2:00	7/5/2016 2:15	7/5/2016 2:30	7/5/2016 2:45	7/5/2016 3:00	7/5/2016 3:15	7/5/2016 3:30	7/5/2016 3:45	7/5/2016 4:00	7/5/2016 4:15	7/5/2016 4:30	7/5/2016 4:45	7/5/2016 5:00	Estimated Average Flow		
Flow (GPD)	727,028.83	701,972.27	695,511.39	688,115.83	740,922.71	704,064.81	684,787.50	856,533.08	831,764.18	794,204.56	767,760.56	397,017.73	381,732.10	337,092.52	326,746.01	323,490.41	380,863.92	608,212.26	(mdg)	715.69
_	504.88	487.48	482.99	477.86	514.53	488.93	475.55	594.81	577.61	551.53	533.17	275.71	265.09	234.09	226.91	224.65	264.49	422.37	Allowable I/I (gpd)	1030600.00
Instrument Date and Time Flow (GPM)	7/4/2016 1:00	7/4/2016 1:15	7/4/2016 1:30	7/4/2016 1:45	7/4/2016 2:00	7/4/2016 2:15	7/4/2016 2:30	7/4/2016 2:45	7/4/2016 3:00	7/4/2016 3:15	7/4/2016 3:30	7/4/2016 3:45	7/4/2016 4:00	7/4/2016 4:15	7/4/2016 4:30	7/4/2016 4:45	7/4/2016 5:00	Estimated Average Flow	Allow	206.12
Flow (GPD)	464,148.11	460,476.74	489,212.75	642,948.31	831,926.87	810,481.20	860,908.27	855,988.24	818,292.39	773,982.60	633,959.47	443,077.69	356,962.10	345,183.13	338,251.60	370,600.36	449,335.63	585,043.26		MQI
Flow (GPM) Flow	322.33	319.78	339.73	446.49	577.73	562.83	597.85	594.44	568.26	537.49	440.25	307.69	247.89	239.71	234.90	257.36	312.04	406.28		
Instrument Date and Time Flow	7/3/2016 1:00	7/3/2016 1:15	7/3/2016 1:30	7/3/2016 1:45	7/3/2016 2:00	7/3/2016 2:15	7/3/2016 2:30	7/3/2016 2:45	7/3/2016 3:00	7/3/2016 3:15	7/3/2016 3:30	7/3/2016 3:45	7/3/2016 4:00	7/3/2016 4:15	7/3/2016 4:30	7/3/2016 4:45	7/3/2016 5:00	Estimated Average Flow		

% to Max I/I Estimated Average Flow Total: 389.38 560,706.64 54.41% Night Usage 0.00

Passed





Flow Measurement Date(s): July 12 - July 14, 2016

MH42578 Basin 11 Summary

MH42578 Basin 11 Flow Data Summary:

 GPM
 GPD

 Estimated Average I/I
 102.76
 147,974.40

 Maximum Allowable I/I
 269.93
 388,699.20

 Station Status
 Passed

### Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 147,974.40 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

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ow (GPD)	1,654,665.12	792,350.60	782,093.06	775,502.40	918,866.16	918,866.16	916,403.20	909,275.10	910,763.70	910,763.70	947,392.21	843,721.17	838,701.83	801,954.40	801,954.40	808,645.61	809,466.06	902,434.40
Flow (GPM) Flow (GPD)	1149.07	550.24	543.12	538.54	638.10	638.10	636.39	631.44	632.47	632.47	657.91	585.92	582.43	556.91	556.91	561.56	562.13	65.69
Instrument Date and Time Fl	7/14/2016 1:00	7/14/2016 1:15	7/14/2016 1:30	7/14/2016 1:45	7/14/2016 2:00	7/14/2016 2:15	7/14/2016 2:30	7/14/2016 2:45	7/14/2016 3:00	7/14/2016 3:15	7/14/2016 3:30	7/14/2016 3:45	7/14/2016 4:00	7/14/2016 4:15	7/14/2016 4:30	7/14/2016 4:45	7/14/2016 5:00	Estimated Average Flow
Flow (GPD)	1,125,267.54	920,708.06	913,363.42	709,246.32	702,819.76	702,819.76	644,944.26	0.00	591,514.45	1,259,810.86	966,531.62	1,242,853.24	1,289,592.69	1,327,209.17	1,311,047.31	1,311,047.31	1,350,275.89	964,650.10
	781.44	660.21	634.28	492.53	488.07	488.07	447.88	0.00	410.77	874.87	671.20	863.09	895.55	921.67	910.45	910.45	937.69	06.699
Instrument Date and Time Flow (GPM)	7/13/2016 1:00	7/13/2016 1:15	7/13/2016 1:30	7/13/2016 1:45	7/13/2016 2:00	7/13/2016 2:15	7/13/2016 2:30	7/13/2016 2:45	7/13/2016 3:00	7/13/2016 3:15	7/13/2016 3:30	7/13/2016 3:45	7/13/2016 4:00	7/13/2016 4:15	7/13/2016 4:30	7/13/2016 4:45	7/13/2016 5:00	Estimated Average Flow
Flow (GPD)	1,090,581.06	1,385,760.32	1,512,794.00	1,512,794.00	1,726,761.97	1,754,697.83	1,754,697.83	1,452,398.99	1,028,483.17	713,377.31	737,861.66	727,417.75	638,638.68	638,638.68	773,869.83	1,494,761.13	1,494,761.13	1,202,252.67
Flow (GPM) Flov	757.35	962.33	1050.55	1050.55	1199.14	1218.54	1218.54	1008.61	714.22	495.40	512.40	505.15	443.50	443.50	537.41	1038.03	1038.03	834.90
Instrument Date and Time Flow	7/12/2016 1:00	7/12/2016 1:15	7/12/2016 1:30	7/12/2016 1:45	7/12/2016 2:00	7/12/2016 2:15	7/12/2016 2:30	7/12/2016 2:45	7/12/2016 3:00	7/12/2016 3:15	7/12/2016 3:30	7/12/2016 3:45	7/12/2016 4:00	7/12/2016 4:15	7/12/2016 4:30	7/12/2016 4:45	7/12/2016 5:00	Estimated Average Flow

% to Max I/I
Estimated Average Flow Total: 710.49 1,023,112.39 38.07% Passed
Night Usage 607.73 875,138.00

(gpm) 269.93

Allowable I/I (gpd) 4 388700.00

77.74

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Flow Measurement Date(s): August 11 - August 13, 2016

MH42532 Basin 27A Flow Data Summary:

 GPM
 GPD

 Estimated Average I/I
 11.48
 16,531.20

 Maximum Allowable I/I
 71.46
 102,902.40

 Station Status
 Passed

### Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 16,531.20 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

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ow (GPD)	84,457.38	86,421.95	124,534.91	123,262.33	123,101.11	83,382.02	83,483.21	82,629.97	82,253.94	116,604.08	119,504.12	121,133.39	132,484.30	132,484.30	99,126.06	132,789.74	78,688.40	106,255.37
Flow (GPM) Flow (GPD)	58.65	60.02	86.48	85.60	85.49	57.90	57.97	57.38	57.12	80.98	82.99	84.12	92.00	92.00	68.84	92.22	54.64	73.79
Instrument Date and Time Fi	8/13/2016 1:00	8/13/2016 1:15	8/13/2016 1:30	8/13/2016 1:45	8/13/2016 2:00	8/13/2016 2:15	8/13/2016 2:30	8/13/2016 2:45	8/13/2016 3:00	8/13/2016 3:15	8/13/2016 3:30	8/13/2016 3:45	8/13/2016 4:00	8/13/2016 4:15	8/13/2016 4:30	8/13/2016 4:45	8/13/2016 5:00	Estimated Average Flow
Flow (GPD)	135,204.88	131,993.75	101,141.14	101,141.14	95,628.76	97,027.09	141,672.14	171,548.38	169,241.25	189,824.58	189,824.58	181,016.14	162,287.85	157,167.56	125,274.13	126,812.56	171,594.31	144,023.54
	93.89	91.66	70.24	70.24	66.41	67.38	98.38	119.13	117.53	131.82	131.82	125.71	112.70	109.14	87.00	88.06	119.16	100.02
Instrument Date and Time Flow (GPM)	8/12/2016 1:00	8/12/2016 1:15	8/12/2016 1:30	8/12/2016 1:45	8/12/2016 2:00	8/12/2016 2:15	8/12/2016 2:30	8/12/2016 2:45	8/12/2016 3:00	8/12/2016 3:15	8/12/2016 3:30	8/12/2016 3:45	8/12/2016 4:00	8/12/2016 4:15	8/12/2016 4:30	8/12/2016 4:45	8/12/2016 5:00	Estimated Average Flow
Flow (GPD)	160,575.29	159,032.34	155,855.56	171,665.90	171,527.49	171,228.93	173,728.85	174,028.82	174,028.82	210,051.26	210,796.44	174,770.73	175,008.45	166,978.49	166,978.49	167,767.42	167,504.61	173,619.29
Flow (GPM) Flov	111.51	110.44	108.23	119.21	119.12	118.91	120.65	120.85	120.85	145.87	146.39	121.37	121.53	115.96	115.96	116.51	116.32	120.57
Instrument Date and Time Flow	8/11/2016 1:00	8/11/2016 1:15	8/11/2016 1:30	8/11/2016 1:45	8/11/2016 2:00	8/11/2016 2:15	8/11/2016 2:30	8/11/2016 2:45	8/11/2016 3:00	8/11/2016 3:15	8/11/2016 3:30	8/11/2016 3:45	8/11/2016 4:00	8/11/2016 4:15	8/11/2016 4:30	8/11/2016 4:45	8/11/2016 5:00	Estimated Average Flow

% to Max I/I Estimated Average Flow Total: 98.12 141,299.40 16.07% Night Usage 86.64 124,761.60

Passed

(gpm) 71.46

Alowable I/I (gpd) 20.58 102900.00

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Flow Measurement Date(s): September 18 - September 20, 2016

MH42400 Basin 27B Flow Data Summary:

 GPM
 GPD

 Estimated Average I/I
 67.98
 97,891.20

 Maximum Allowable I/I
 72.22
 103,996.80

 Station Status
 Passed

### Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 97,891.20 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

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ow (GPD)	647,831.21	633,017.37	624,097.09	618,553.87	593,677.97	593,677.97	577,687.50	569,772.38	565,281.83	541,926.30	526,884.04	526,884.04	570,898.43	564,041.07	572,258.67	570,898.43	535,898.85	578,428.65
Flow (GPM) Flow (GPD)	0 449.882782	5 439.595398	433.400757	5 429.5513	) 412.276367	5 412.276367	0 401.171875	395.675262	392.556824	376.337708	365.891693	365.891693	396.457245	391.69519	397.401855	396.457245	372.151978	401.69
Instrument Date and Time	9/20/2016 1:00 449.882782	9/20/2016 1:15	9/20/2016 1:30	9/20/2016 1:45	9/20/2016 2:00	9/20/2016 2:15	9/20/2016 2:30	9/20/2016 2:45	9/20/2016 3:00 392.556824	9/20/2016 3:15	9/20/2016 3:30	9/20/2016 3:45	9/20/2016 4:00	9/20/2016 4:15	9/20/2016 4:30	9/20/2016 4:45	9/20/2016 5:00	Estimated Average Flow
Flow (GPD)	882,265.52	774,860.89	753,141.53	643,817.59	608,394.51	608,394.51	643,817.59	1,383,654.02	1,383,654.02	1,383,654.02	1,156,081.55	1,270,994.85	966,776.13	882,140.45	1,082,032.73	888,547.94	973,798.42	958,001.55
Flow (GPM)	612.6843872	538.0978394	523.0149536	447.0955505	422.4961853	422.4961853	447.0955505	960.8708496	960.8708496	960.8708496	802.8344116	882.6353149	671.3723145	612.5975342	751.4116211	617.0471802	676.2489014	665.28
Instrument Date and Time Flov	9/19/2016 1:00	9/19/2016 1:15	9/19/2016 1:30	9/19/2016 1:45	9/19/2016 2:00	9/19/2016 2:15	9/19/2016 2:30	9/19/2016 2:45	9/19/2016 3:00	9/19/2016 3:15	9/19/2016 3:30	9/19/2016 3:45	9/19/2016 4:00	9/19/2016 4:15	9/19/2016 4:30	9/19/2016 4:45	9/19/2016 5:00	Estimated Average Flow
Flow (GPD)	765,360.00	765,360.00	732,098.28	718,904.84	690,051.23	676,107.95	597,531.23	534,445.27	377,169.13	782,671.55	894,158.53	598,090.21	598,090.21	1,863,415.72	1,069,248.25	1,069,248.25	1,069,248.25	811,835.23
Flow (GPM) Flov	531.5	531.5	508.4015808	499.2394714	479.20224	469.5194092	414.95224	371.1425476	261.9230042	543.5219116	620.9434204	415.3404236	415.3404236	1294.038696	742.5335083	742.5335083	742.5335083	563.77
Instrument Date and Time Fl	9/18/2016 1:00	9/18/2016 1:15	9/18/2016 1:30	9/18/2016 1:45	9/18/2016 2:00	9/18/2016 2:15	9/18/2016 2:30	9/18/2016 2:45	9/18/2016 3:00	9/18/2016 3:15	9/18/2016 3:30	9/18/2016 3:45	9/18/2016 4:00	9/18/2016 4:15	9/18/2016 4:30	9/18/2016 4:45	9/18/2016 5:00	Estimated Average Flow

Allowable I/I (gpd) (gpm) 10.22 72.22

% to Max I/I
Estimated Average Flow Total: 543.58 782,755.14 94.13% Passed
Night Usage 475.60 684,864.00





# MH42138 Basin 28B Summary

Flow Measurement Date(s): August 5 - August 7, 2016

MH42138 Basin 28B Flow Data Summary

 GPM
 GPD

 Estimated Average I/I
 89.71
 129,182.40

 Maximum Allowable I/I
 201.15
 289,656.00

 Station Status
 Passed

### Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 129,182.40 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

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ow (GPD)	243,278.85	240,284.97	229,915.00	227,944.29	225,471.18	220,912.93	219,906.45	218,790.07	227,279.42	226,499.35	225,718.84	226,859.61	00.00	0.00	0.00	0.00	0.00	160,756.53
Flow (GPM) Fl	168.943649	166.864563	159.663193	158.294647	156.577209	153.411758	152.712814	151.937546	157.832932	157.291214	156.749191	157.541397	0	0	0	0	0	111.64
Instrument Date and Time Flow (GPM) Flow (GPD)	8/7/2016 1:00 168.943649	8/7/2016 1:15 166.864563	8/7/2016 1:30 159.663193	8/7/2016 1:45 158.294647	8/7/2016 2:00 156.577209	8/7/2016 2:15 153.411758	8/7/2016 2:30 152.712814	8/7/2016 2:45 151.937546	8/7/2016 3:00 157.832932	8/7/2016 3:15 157.291214	8/7/2016 3:30 156.749191	8/7/2016 3:45	8/7/2016 4:00	8/7/2016 4:15	8/7/2016 4:30	8/7/2016 4:45	8/7/2016 5:00	Estimated Average Flow
Flow (GPD)	278,450.62	274,057.56	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	32,500.48
Flow (GPM) Flo	193.3684845	190.317749	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	22.57
Instrument Date and Time Flow	8/6/2016 1:00	8/6/2016 1:15	8/6/2016 1:30	8/6/2016 1:45	8/6/2016 2:00	8/6/2016 2:15	8/6/2016 2:30	8/6/2016 2:45	8/6/2016 3:00	8/6/2016 3:15	8/6/2016 3:30	8/6/2016 3:45	8/6/2016 4:00	8/6/2016 4:15	8/6/2016 4:30	8/6/2016 4:45	8/6/2016 5:00	Estimated Average Flow
Flow (GPD)	0.00	0.00	137,550.26	269,335.46	202,329.71	266,551.04	264,958.55	264,124.80	0.00	126,741.80	253,483.59	191,638.72	256,664.88	259,167.55	261,765.90	263,168.17	285,347.72	194,284.01
Flow (GPM) Flow	0	0	95.52101135	187.0385132	140.5067444	185.1048889	183.9989929	183.4199982	0	88.01513672	176.0302734	133.0824432	178.239502	179.9774628	181.7818756	182.7556763	198.1581421	134.92
Instrument Date and Time Fl	8/5/2016 1:00	8/5/2016 1:15	8/5/2016 1:30	8/5/2016 1:45	8/5/2016 2:00	8/5/2016 2:15	8/5/2016 2:30	8/5/2016 2:45	8/5/2016 3:00	8/5/2016 3:15	8/5/2016 3:30	8/5/2016 3:45	8/5/2016 4:00	8/5/2016 4:15	8/5/2016 4:30	8/5/2016 4:45	8/5/2016 5:00	Estimated Average Flow

% to Max I/I
Estimated Average Flow Total: 89.71 129,180.34 44.60% Passed
Night Usage 0.00

(gpm) 201.15

Allowable I/I (gpd) 57.93 289650.00

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# MH43214 Basin 28D Summary

Flow Measurement Date(s): September 21 - September 23, 2016

MH43214 Basin 28D Flow Data Summary

 GPM
 GPD

 Estimated Average I/I
 200.46
 288,662.40

 Maximum Allowable I/I
 220.45
 317,448.00

 Station Status
 Passed

Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 288,662.40 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

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ow (GPD)	327,255.42	322,373.69	317,561.92	314,770.65	310,358.12	293,013.24	287,150.98	286,986.84	286,986.84	295,469.60	296,449.19	306,075.19	306,075.19	296,967.13	298,087.29	307,766.49	290,903.91	302,603.04
Flow (GPM) Flow (GPD)	227.260712	223.870621	220.529114	218.590729	215.526474	203.481415	199.4104	199.296417	199.296417	205.187225	205.867493	212.552216	212.552216	206.227173	207.005066	213.72673	202.016602	210.14
Instrument Date and Time	9/23/2016 1:00 227.260712	9/23/2016 1:15	9/23/2016 1:30	9/23/2016 1:45	9/23/2016 2:00	9/23/2016 2:15	9/23/2016 2:30	9/23/2016 2:45	9/23/2016 3:00	9/23/2016 3:15	9/23/2016 3:30	9/23/2016 3:45	9/23/2016 4:00	9/23/2016 4:15	9/23/2016 4:30	9/23/2016 4:45	9/23/2016 5:00	Estimated Average Flow
Flow (GPD)	3,023,097.54	3,011,243.55	3,001,498.59	2,980,584.84	2,951,791.17	2,948,007.13	2,906,940.41	2,867,873.91	2,859,561.91	2,830,142.46	2,816,721.39	2,816,721.39	2,826,552.83	2,838,453.05	2,841,963.05	2,841,963.05	2,831,155.66	2,893,780.70
Flow (GPM) F	2099.373291	2091.141357	2084.374023	2069.850586	2049.85498	2047.227173	2018.708618	1991.579102	1985.806885	1965.376709	1956.056519	1956.056519	1962.883911	1971.147949	1973.585449	1973.585449	1966.080322	2009.57
Instrument Date and Time Flo	9/22/2016 1:00	9/22/2016 1:15	9/22/2016 1:30	9/22/2016 1:45	9/22/2016 2:00	9/22/2016 2:15	9/22/2016 2:30	9/22/2016 2:45	9/22/2016 3:00	9/22/2016 3:15	9/22/2016 3:30	9/22/2016 3:45	9/22/2016 4:00	9/22/2016 4:15	9/22/2016 4:30	9/22/2016 4:45	9/22/2016 5:00	Estimated Average Flow
Flow (GPD)	3,090,252.30	3,089,245.08	3,088,517.34	3,051,333.63	3,037,018.71	2,969,281.05	2,947,264.98	2,925,746.37	2,925,746.37	2,920,469.59	2,925,746.37	2,927,912.34	2,913,679.51	2,887,442.05	2,867,526.04	2,838,355.84	2,830,124.88	2,955,038.97
Flow (GPM) Flov	2146.008545	2145.309082	2144.803711	2118.981689	2109.040771	2062.000732	2046.711792	2031.768311	2031.768311	2028.103882	2031.768311	2033.272461	2023.38855	2005.168091	1991.337524	1971.080444	1965.364502	2052.11
Instrument Date and Time F	9/21/2016 1:00	9/21/2016 1:15	9/21/2016 1:30	9/21/2016 1:45	9/21/2016 2:00	9/21/2016 2:15	9/21/2016 2:30	9/21/2016 2:45	9/21/2016 3:00	9/21/2016 3:15	9/21/2016 3:30	9/21/2016 3:45	9/21/2016 4:00	9/21/2016 4:15	9/21/2016 4:30	9/21/2016 4:45	9/21/2016 5:00	Estimated Average Flow

Passed % to Max I/I 2,050,474.24 90.93% 1,761,811.20

(gpm) 220.45

Allowable I/I (gpd) 63.49 317450.00

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1423.94 1223.48 Estimated Average Flow Total: Night Usage





Flow Measurement Date(s): September 14 - September 16, 2016

MH41599 Basin 28 Data Flow Summary

 GPM
 GPD

 Estimated Average I/I
 79.52
 114,508.80

 Maximum Allowable I/I
 86.53
 124,603.20

 Station Status
 Passed

### Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 114,508.80 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

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ow (GPD)	333,270.29	326,713.56	326,713.56	306,656.06	303,532.93	298,886.13	302,499.01	301,116.53	301,116.53	301,416.75	301,116.53	301,832.31	291,627.60	302,363.20	306,525.65	316,789.26	316,789.26	308,174.42
Flow (GPM) Flow (GPD)	9/16/2016 1:00 231.437698	5 226.884415	) 226.884415	5 212.955597	) 210.786758	5 207.559814	210.068756	5 209.108704	209.108704	5 209.317184	209.108704	5 209.605774	0 202.519165	5 209.974442	) 212.865036	5 219.992538	) 219.992538	214.01
Instrument Date and Time	9/16/2016 1:00	9/16/2016 1:15	9/16/2016 1:30	9/16/2016 1:45	9/16/2016 2:00	9/16/2016 2:15	9/16/2016 2:30	9/16/2016 2:45	9/16/2016 3:00	9/16/2016 3:15	9/16/2016 3:30	9/16/2016 3:45	9/16/2016 4:00	9/16/2016 4:15	9/16/2016 4:30	9/16/2016 4:45	9/16/2016 5:00	Estimated Average Flow
Flow (GPD)	333,628.24	331,390.79	329,034.00	320,656.31	318,533.93	314,498.89	313,511.73	308,088.63	305,267.19	295,396.77	305,267.19	288,263.21	287,728.62	310,318.90	312,612.96	310,776.13	315,485.42	311,791.70
Flow (GPM) Flo	231.6862793	230.1324921	228.4958344	222.6779938	221.2041168	218.4020081	217.7164764	213.9504395	211.9911041	205.1366425	211.9911041	200.182785	199.8115387	215.4992371	217.0923309	215.8167572	219.0870972	216.52
Instrument Date and Time Flov	9/15/2016 1:00	9/15/2016 1:15	9/15/2016 1:30	9/15/2016 1:45	9/15/2016 2:00	9/15/2016 2:15	9/15/2016 2:30	9/15/2016 2:45	9/15/2016 3:00	9/15/2016 3:15	9/15/2016 3:30	9/15/2016 3:45	9/15/2016 4:00	9/15/2016 4:15	9/15/2016 4:30	9/15/2016 4:45	9/15/2016 5:00	Estimated Average How
Flow (GPD)	551,501.67	532,323.33	485,102.72	483,018.75	483,018.75	474,002.58	480,650.89	477,329.50	476,941.77	476,941.77	478,344.02	478,344.02	480,448.70	497,186.10	502,528.01	513,497.07	528,542.58	494,101.31
Flow (GPM) Flow	382.9872742	369.6689758	336.8768921	335.4296875	335.4296875	329.168457	333.7853394	331.4788208	331.2095642	331.2095642	332.1833496	332.1833496	333.644928	345.2681274	348.9777832	356.5951843	367.043457	343.13
Instrument Date and Time Fl	9/14/2016 1:00	9/14/2016 1:15	9/14/2016 1:30	9/14/2016 1:45	9/14/2016 2:00	9/14/2016 2:15	9/14/2016 2:30	9/14/2016 2:45	9/14/2016 3:00	9/14/2016 3:15	9/14/2016 3:30	9/14/2016 3:45	9/14/2016 4:00	9/14/2016 4:15	9/14/2016 4:30	9/14/2016 4:45	9/14/2016 5:00	Estimated Average Flow

% to Max I/I
Estimated Average Flow Total: 257.89 371,355.81 91.90% Passed
Night Usage 178.37 256,852.80

(gpm) 86.53

Allowable I/I (gpd) 24.92 124600.00

DΜ



# MH43323 Basin 31A Summary

Flow Measurement Date(s): July 02 - July 04, 2016

MH43323 Basin 31A Flow Data Summary

 GPM
 GPD

 Estimated Average I/I
 66.72
 96,076.80

 Maximum Allowable I/I
 110.63
 159,307.20

 Station Status
 Passed

### Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 96,076.80 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

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Instrument Date and Time Flov 7/2/2016 1:00 7/2/2016 1:15 7/2/2016 1:10		Flow (GPD) 0.00 0.00 0.00 0.00			Flow (GPD) 0.00 80,403.94 94,445.60	ш	ow (GPD) 103,265.06 103,265.06 91,452.50
28. 56. 56. 58. 63. 63. 63. 63. 76.	28.00810051 56.01620102 42.16419983 56.01620102 58.21220779 49.35919571 63.17015076 68.36334991 63.17015076 88.83272552 89.58726501 76.15732574 61.46199417	40,331.66 80,663.33 60,716.45 80,663.33 83,825.58 71,077.24 90,965.02 98,443.22 90,965.02 127,919.12 129,005.66 109,666.55 88,505.27	7/3/2016 1:45 7/3/2016 2:00 7/3/2016 2:15 7/3/2016 2:45 7/3/2016 3:10 7/3/2016 3:15 7/3/2016 3:15 7/3/2016 3:45 7/3/2016 4:00 7/3/2016 4:00 7/3/2016 4:00 7/3/2016 4:15 7/3/2016 4:15 7/3/2016 4:15 7/3/2016 4:15	57.79409409 51.58700943 83.32121277 62.78159332 51.58700943 62.78159332 62.78159332 51.15.290179 49.17559052 49.17559052 61.60294724 64.30686951 64.35483551	83,223.50 74,285.29 10,982.55 90,405.49 74,285.29 90,405.49 73,659.31 70,812.85 70,812.85 70,812.85 88,708.24 92,601.89	7/4/2016 1:45 63:5086823 7/4/2016 2:00 102:99948 7/4/2016 2:15 59:5987511 7/4/2016 2:45 111.110992 7/4/2016 3:00 111.110992 7/4/2016 3:30 12.728836 7/4/2016 3:30 12.728836 7/4/2016 4:30 127.728836 7/4/2016 4:00 120.688446 7/4/2016 4:30 120.688446 7/4/2016 4:30 120.688446 7/4/2016 4:30 120.688446	91,452.50 148,276.72 85,822.20 148,276.72 159,999.83 165,357.83 107,000.46 173,791.36 99,655.05 173,791.36
	51.61	74,314.44 IDM	Estimated Average Flow Allo	55.47 Allowable I/I (gpd) 159300.00	79,877.74 (gpm)	Estimated Average Flow 93.07	134,027.84
	66.72	% to Max I/I 96,073.34 60.31% 0.00	/I 1% Passed				





# MH43321 Basin 31B Summary

Flow Measurement Date(s): July 13 - July 15, 2016

MH43321 Basin 31B Flow Data Summary

GPM GPD
Estimated Average I/I 105.02 151,228.80
Maximum Allowable I/I 197.64 284,601.60
Station Status Passed

### Flow Measurement Technology Description:

An In-Situ calibration was perform onsite prior to final deployment of flow meter per Miami-Dade Water and Sewer Standards. Measurements were taken at 1:00 AM thru 5:00 AM Total flow at this facility was measured by Digital Doppler Radar velocity sensing technology combined with ultrasonic pulse echol level sensing to measure open channel flow. for a 72 hour period to insure redundancy of data. Wireless Monitoring Technology was also utilized to insure no fouling of the sensor. The flow measured corresponded to The Maximum measured I/I of 151,228.80 GPD is Less than the calculated maximum permitted I/I value of GPD. Therefore this system will not be required to carry out the additional inspection and/or remediation.

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Instrument Date and Time Flow (GPM) Flow (GPD)	511,812.55 7/15/20161:00 332.23 478,414.01	510,995.72 333.20 479,803.25	505,634.39 7/20/2016 1:30 331.89 477,918.15	501,514.37 7/20/2016 1:45 335.06 482,485.96	208,882.42 7/20/2016 2:00 312.78 450,408.72	153,049.05	7/20/2016 2:30 115.17 165,843.09	.91,450.81 7/20/2016 2:45 115.69 166,588.51	239,893.92 7/20/2016 3:00 256.62 369,535.56	54,131.35 7/20/2016 3:15 324.79 467,694.18	7/20/2016 3:30 324.79 467,694.18	21,913.50 7/20/2016 3:45 310.50 447,118.24	191,676.51 7/20/2016 4:00 278.55 401,106.49	7/20/2016 4:15 17.71 255,907.07	131,296.89 7/20/2016 4:30 122.18 175,940.20	107,957.01 7/20/2016 4:45 121.85 175,458.25	7/20/2016 5:00 123.44 177,749.87	331,160.83 Estimated Average Flow 236.63 340,747.93	(mdg)
Flow (GPD)			Ξ,	Ξ,		.,					(1)	(1)	.,	1	7	,	(1)		
Flow (GPM)	1:00 355.43	1:15 354.86	1:30 351.13	1:45 348.27	2:00 145.06	2:15 145.06	2:30 123.92	2:45 132.95	3:00 166.59	3:15 176.48	3:30 223.55	3:45 223.55	4:00 202.55	4:15 119.41	4:30 299.51	4:45 283.30	5:00 257.91	229.97	Allowable I/I (gpd)
Instrument Date and Time	7/14/2016 1:00	7/19/2016 1:15	7/19/2016 1:30	7/19/2016 1:45	7/19/2016 2:00	7/19/2016 2:15	7/19/2016 2:30	7/19/2016 2:45	7/19/2016 3:00	7/19/2016 3:15	7/19/2016 3:30	7/19/2016 3:45	7/19/2016 4:00	7/19/2016 4:15	7/19/2016 4:30	7/19/2016 4:45	7/19/2016 5:00	Estimated Average Flow	
Flow (GPD)	383,650.05	360,503.24	721,536.64	602,963.81	516,060.13	504,584.76	881,372.16	892,485.71	901,642.90	996,169.81	190,751.81	382,072.81	555,076.74	484,365.17	524,168.77	522,255.96	517,773.89	584,554.96	
Flow (GPM) Flov	266.42	250.35	501.07	418.72	358.38	350.41	612.06	619.78	626.14	691.78	132.47	265.33	385.47	336.36	364.01	362.68	359.57	405.94	
Instrument Date and Time Flov	7/13/2016 1:00	7/18/2016 1:15	7/18/2016 1:30	7/18/2016 1:45	7/18/2016 2:00	7/18/2016 2:15	7/18/2016 2:30	7/18/2016 2:45	7/18/2016 3:00	7/18/2016 3:15	7/18/2016 3:30	7/18/2016 3:45	7/18/2016 4:00	7/18/2016 4:15	7/18/2016 4:30	7/18/2016 4:45	7/18/2016 5:00	Estimated Average Flow	

% to Max I/I Estimated Average Flow Total: 290.85 418,821.24 53.14% Night Usage 185.83 267,595.00

Passed

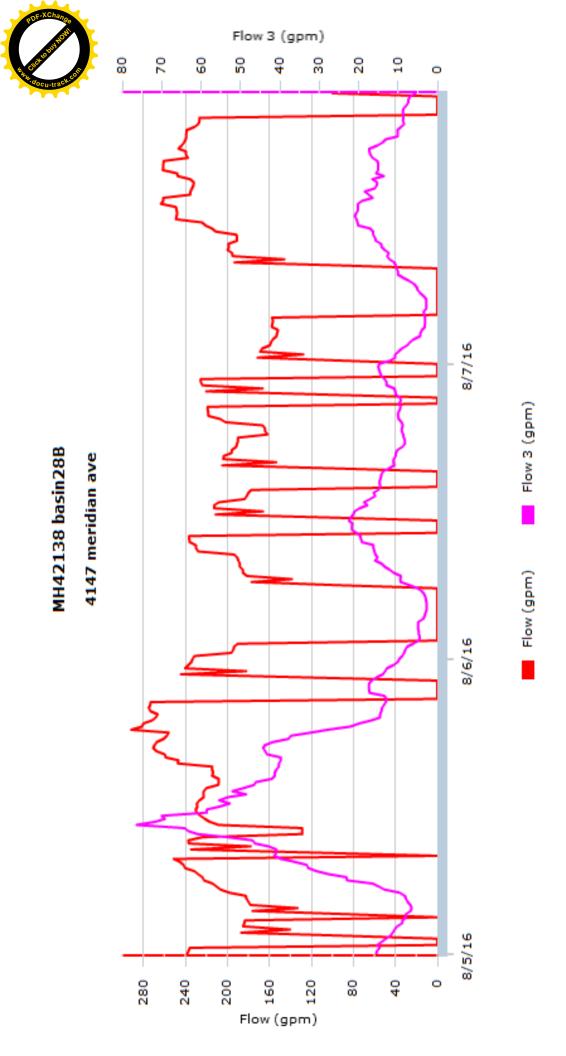


MH41599 basin29

6388 indian creek dr





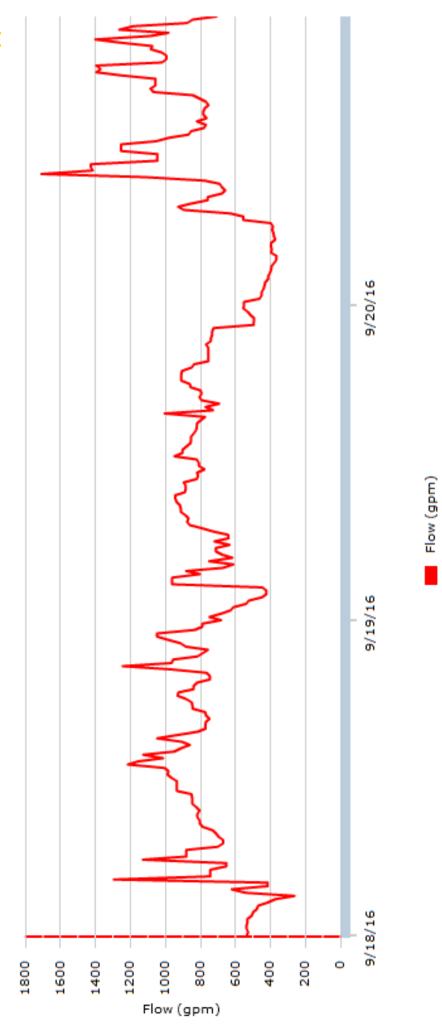




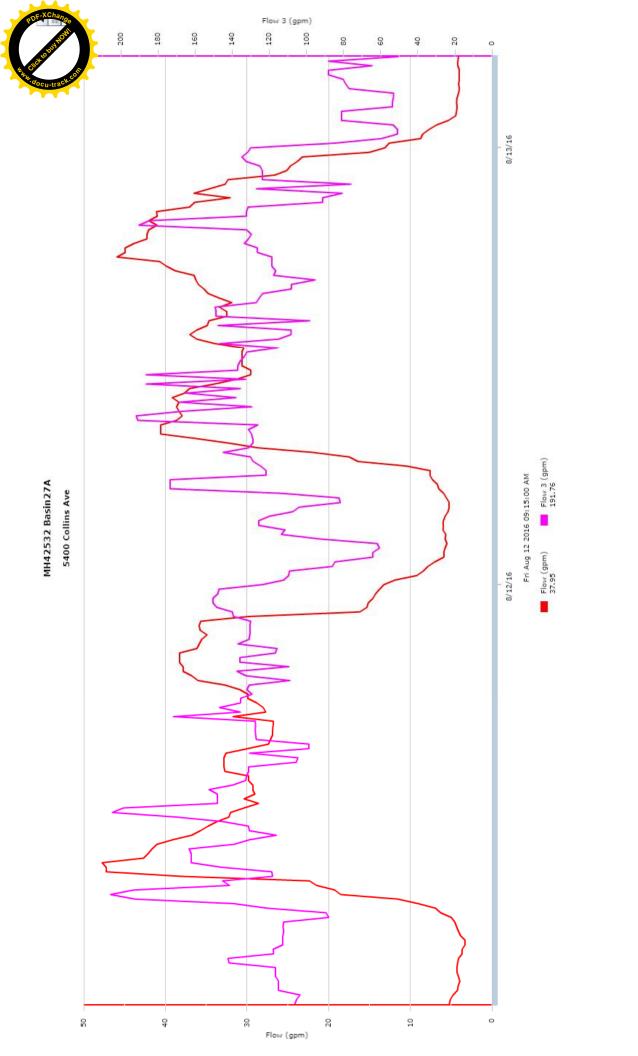


#### MH42400 Basin27B

5401 Collins Ave Miami Beach



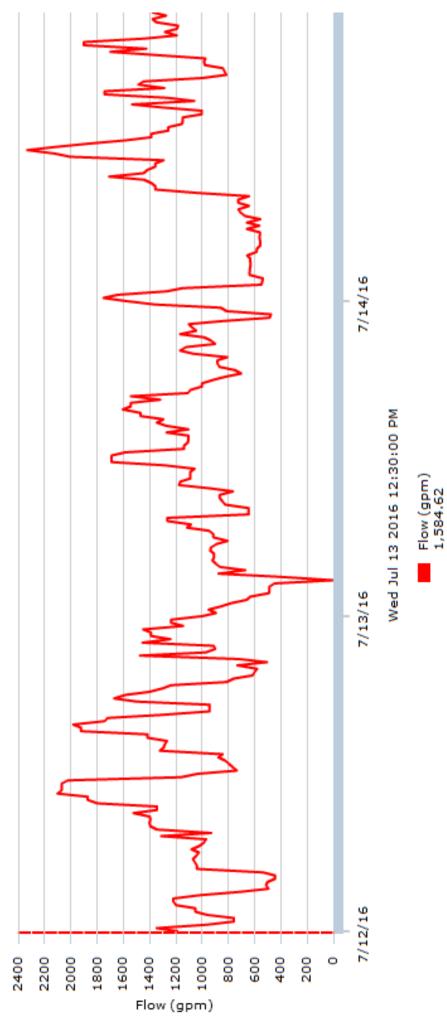








MH42578 Basin11 Jackie Gleason Dr





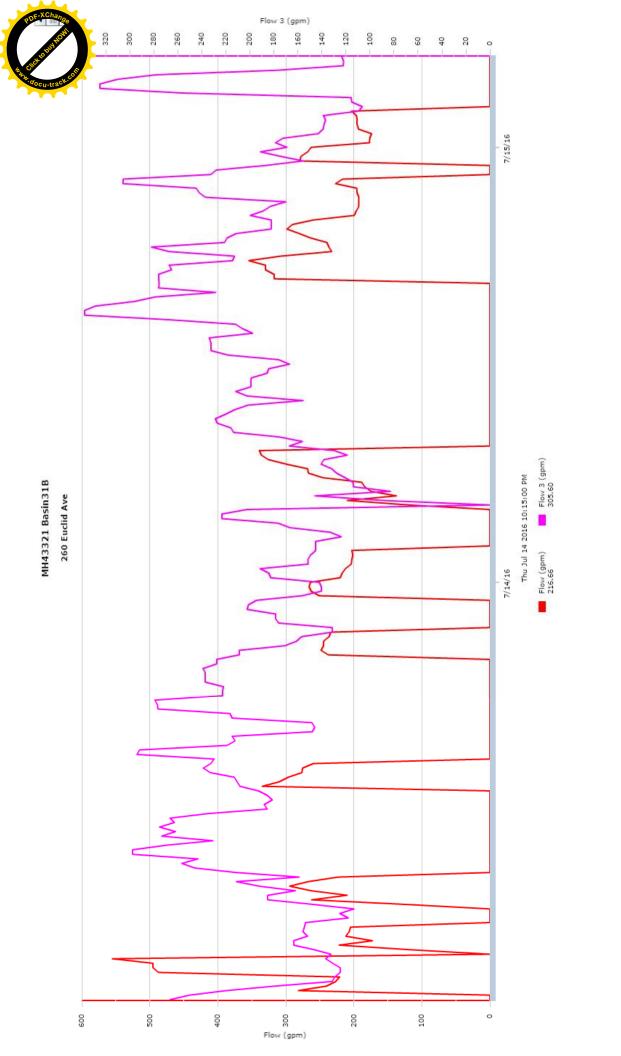


#### MH43214 basin28D

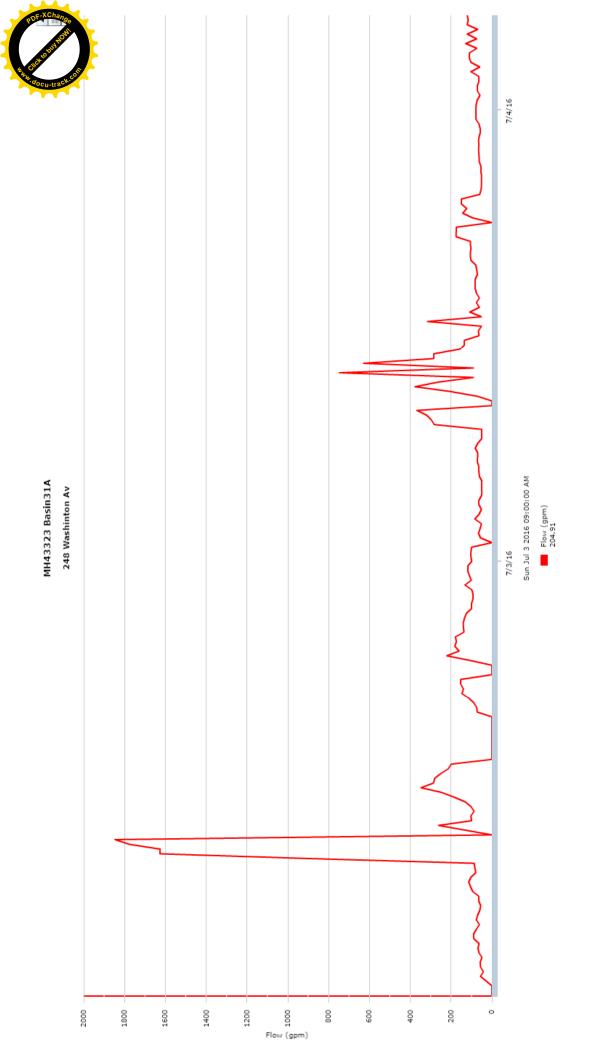
# 300 W 28th st Miami Beach















MH43457 Basin 1B

810 11th St Miami Beach









#### **Appendix C**

#### Flow Monitoring Data

- Basin 1B
- Basin 11
- Basin 27A
- Basin 27B
- Basin 28B
- Basin 28D
- Basin 29
- Basin 31A
- Basin 31B





#### **Appendix D**

#### Water Consumption Data

- Basin 11
- Basin 27B
- Basin 28D
- Basin 29



ack.co ID	Acct		Service_Lo			zeJune_2016		ıly_2016 AUG_2016	
11	031237-00	comm	1836 JAMES AVE MIAMI BEACH FL 33139-7423	water	0.625		0	0	0
11	033712-00	hotel	1757 COLLINS AVE MIAMI BEACH FL 33139-2006	water	1.5		907	718	605
11	038968-00	comm	1621 COLLINS AVE MIAMI BEACH FL 33139-3112	water	1		235	278	157
11	042457-01	comm	1500 COLLINS AVE MIAMI BEACH FL 33139-3111	water	2	NA		0	0
11	077412-01	apart	2115 WASHINGTON AVE MIAMI BEACH FL 33139-1826	water	1		0	0	0
11	118729-00	city	1900 1/2 WASHINGTON AVE MIAMI BEACH FL 33139	water	2		0	0	0
	118729-00	•	•				0	0	
11		city	1901 1/2 CONVENTION CENTER DR MIAMI BEACH FL 33139-1820	water	4				0
11	118794-00	city	1701 1/2 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2		0	0	0
11	118794-00	city	2100 COLLINS AVE MIAMI BEACH FL 33139	water	2		6764	4763	4446
11	118794-00	city	2100 COLLINS AVE MIAMI BEACH FL 33139	water	2		590	8	15
11	118794-00	city	236 1/2 21ST ST MIAMI BEACH FL 33139	water	1		0	0	0
11	118794-00	city	236 1/2 21ST ST MIAMI BEACH FL 33139	water	2		18	78	74
11	118794-00	city	430 1/2 21ST ST MIAMI BEACH FL 33139-1705	water	2		83	148	172
		•	2001 COLLINS AVE MIAMI BEACH FL 33139-1703		2				120
11	310607-01	condo		water			134	159	
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2		5114	7253	6714
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2		126	201	1912
11	502356-00	city	2200 1/2 PARK AVE MIAMI BEACH FL 33139-1722	water	2		0	0	0
11	502594-02	comm	2000 COLLINS AVE MIAMI BEACH FL 33139	water	2		290	380	301
11	503734-01	city	1975 WASHINGTON AVE MIAMI BEACH FL 33139-1973	water	1	NA		0	199
11	505582-00	comm	1670 COLLINS AVE MIAMI BEACH FL 33139-3137	water	0.625		0	0	0
						NIA	U		0
11	505590-01	comm	318 21ST ST MIAMI BEACH FL 33139-1703	water	2	NA		0	
11		hotel	1775 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2		935	1840	1064
11	507740-01	apart	1600 COLLINS AVE MIAMI BEACH FL 33139-3113	water	2		0	0	0
11	509343-01	res	1732 JAMES AVE MIAMI BEACH FL 33139-7507	water	2		0	0	0
11	509716-00	hotel	1685 COLLINS AVE MIAMI BEACH FL 33139-3136	water	2		2249	3198	2500
11		hotel	1685 COLLINS AVE MIAMI BEACH FL 33139-3136	water	2		2414	3045	761
11		hotel	1701 JAMES AVE MIAMI BEACH FL 33139-7508	water	1.5		1228	1385	1136
11	510944-00	comm	1925 WASHINGTON AVE MIAMI BEACH FL 33139-1973	water	2		166	198	174
11	511574-00	comm	1775 WASHINGTON AVE MIAMI BEACH FL 33139-7541	water	1		0	0	0
11	511634-01	hotel	1677 COLLINS AVE MIAMI BEACH FL 33139-3136	water	2		3082	4849	3408
11	511693-00	hotel	1751 COLLINS AVE MIAMI BEACH FL 33139-2006	water	1		572	928	636
11	511942-00	hotel	1650 JAMES AVE MIAMI BEACH FL 33139-3115	water	2		440	1296	561
11	512731-00	apart	1849 JAMES AVE MIAMI BEACH FL 33139-7424	water	1.5		1661	2504	2062
11	512799-00	hotel	1720 COLLINS AVE MIAMI BEACH FL 33139-2007	water	1		78	102	89
11	512862-00	comm	1601 COLLINS AVE MIAMI BEACH FL 33139-3112	water	3		10076	14878	11697
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	2		2135	1984	1482
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	2		5070	7376	12293
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	2		0	0	0
11	512971-00	comm	2312 LIBERTY AVE MIAMI BEACH FL 33139	water	0.625		183	241	201
11	513234-00	comm	1503 OCEAN DR MIAMI BEACH FL 33139-3110	water	2		726	928	846
11	513559-00	comm	340 23RD ST MIAMI BEACH FL 33139-1716	water	0.625		0	0	0
11	513690-00	hotel	318 20TH ST MIAMI BEACH FL 33139-1908	water	2		1000	975	988
11	513690-00	hotel	318 20TH ST MIAMI BEACH FL 33139-1908	water	2		472	577	482
11	513916-01	hotel	1671 COLLINS AVE MIAMI BEACH FL 33139-3136	water	2		266	397	342
11	514248-00	condo	1500 OCEAN DR MIAMI BEACH FL 33139-3105	water	3		3649	4755	4075
11	514448-00	condo	1700 JAMES AVE MIAMI BEACH FL 33139-7507	water	1		0	0	0
11	516420-00	res	237 20TH ST MIAMI BEACH FL 33139-1905	water	1		0	0	0
11	517751-00	condo	1840 JAMES AVE MIAMI BEACH FL 33139-7423	water	1		0	0	0
11	518295-00	comm	1626 COLLINS AVE MIAMI BEACH FL 33139-3113	water	1		942	278	46
11	518663-00	comm	155 LINCOLN RD MIAMI BEACH FL 33139-2001	water	2		8061	9361	10340
11	519450-01	comm	2140 PARK AVE MIAMI BEACH FL 33139-1749	water	1.5		1379	1496	1236
11	519555-01	hotel	1701 COLLINS AVE MIAMI BEACH FL 33139-2006	water	1		667	1106	882
11	520044-03	hotel	1700 COLLINS AVE MIAMI BEACH FL 33139-2007	water	1.5		223	490	485
11	520148-00	city	1676 JAMES AVE MIAMI BEACH FL 33139-3115	water	2		0	410	162
11	520148-00	city	350 1/2 18TH ST MIAMI BEACH FL 33139	water	2		53	31	1
		•							
11	520148-00	city	220 1/2 18TH ST MIAMI BEACH FL 33139	water	2		101	132	71 576
11	520148-00	city	1795 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-7541	water	2		1064	416	576
11	520148-00	city	1895 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-7444	water	2		299	685	25
11	520148-00	city	2005 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-1974	water	2		0	0	0
11	520148-00	city	2105 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-1826	water	2		9	11	0
11	520148-00	city	2121 1/2 PARK AVE MIAMI BEACH FL 33139-1756	water	0.625		317	281	164
11	520148-00	city	400 1/2 17TH ST MIAMI BEACH FL 33139	water	2		3656	3164	2601
11		•	•		2		344	354	319
	520148-00	city	1831 JAMES AVE MIAMI BEACH FL 33139-7424	water					
11	520148-00	city	2129 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-1826	water	0.625		0	0	0
11	520148-00	city	427 1/2 W 22ND ST MIAMI BEACH FL 33139-1706	water	1		422	387	720
11	520148-00	city	1745 JAMES AVE MIAMI BEACH FL 33139-7508	water	2		260	204	246
11	520161-00	comm	227 W 22ND ST MIAMI BEACH FL 33139-1707	water	1.5		0	0	0
11	520260-03	hotel	1545 COLLINS AVE MIAMI BEACH FL 33139-3110	water	2		1937	2672	1968
11	520549-00	condo	2228 PARK AVE MIAMI BEACH FL 33139-1722	water	0.625		0	0	0
11	520549-00	condo	2228 PARK AVE MIAMI BEACH FL 33139-1722	water	0.625		0	0	0
11	521160-00	comm	1685 JAMES AVE MIAMI BEACH FL 33139-3114	water	1.5		0	0	0
11	521458-00	comm	2201 COLLINS AVE APT 4 MIAMI BEACH FL 33139-1717	water	2		1605	1590	1296
11	521458-00	comm	2201 COLLINS AVE APT 4 MIAMI BEACH FL 33139-1717	water	2		0	0	0
11	576774-01	city	640 17TH ST MIAMI BEACH FL 33139	water	3		0	0	0
11	576774-01	city	1660 COLLINS AVE MIAMI BEACH FL 33139-3137	water	1		0	0	0
		•							
11	576774-01	city	1700 WASHINGTON AVE MIAMI BEACH FL 33139-7540	water	3		0	0	0
11	576775-01		2101 COLLINS AVE MIAMI BEACH FL 33139	water	2		3835	4510	2705
11	576776-01	city	1700 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-7540	water	3		0	319	71
11	576777-01	city	2020 1/2 WASHINGTON AVE MIAMI BEACH FL 33139	water	1		172	31	121
11	576777-01	city	2020 1/2 WASHINGTON AVE MIAMI BEACH FL 33139	water	2	NA		0	0



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W. COR	576777-01	city	1701 1/2 COLLINS AVE MIAMI BEACH FL 33139-2006	water	0.625	0	0	2
11	576777-01	city	2131 1/2 COLLINS AVE MIAMI BEACH FL 33139	water	4	0	0	3
11	576777-01	city	2138 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-1825	water	1.5	0	0	0
11	576778-01	city	2100 1/2 LIBERTY AVE MIAMI BEACH FL 33139	water	2	0	0	0
11	576778-01	city	2115 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-1826	water	2	0	0	0
11 11	031187-00 507460-01	condo hotel	245 18TH ST MIAMI BEACH FL 33139-2011 1610 COLLINS AVE MIAMI BEACH FL 33139-3113	water	2	1120 41	1114 60	1150
11	507740-01	apart	1600 COLLINS AVE MIAMI BEACH FL 33139-3113	water water	2	0	0	263 0
11	507740-01	apart	1600 COLLINS AVE MIAMI BEACH FL 33139-3113	water	2	840	875	835
11	507740-01	apart	1600 COLLINS AVE MIAMI BEACH FL 33139-3113	water	2	858	860	833
11	507740-01	apart	1600 COLLINS AVE MIAMI BEACH FL 33139-3113	water	2	850	861	854
11	510944-00	comm	1925 WASHINGTON AVE MIAMI BEACH FL 33139-1973	water	1.5	596	602	501
11	512803-00	hotel	1737 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	1579	1963	1696
11	512803-00	hotel	1737 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	1586	1978	1711
11	512805-00	hotel	1717 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	1350	1878	1630
11	512805-00	hotel	1717 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	1390	1943	1682
11 11	521112-01 013276-00	apart city	235 18TH ST MIAMI BEACH FL 33139-2011 2100 1/2 WASHINGTON AVE CTR MIAMI BEACH FL 33139-1824	water water	2	347 0	339 0	340 0
11	013276-00	city	2100 1/2 WASHINGTON AVE CIT MIAMI BEACH FL 33139-1824	water	1	0	0	0
11	031062-00	condo	1800 COLLINS AVE MIAMI BEACH FL 33139-7413	water	3	3000	3000	3000
11	031062-00	condo	1800 COLLINS AVE MIAMI BEACH FL 33139-7413	water	3	3000	3000	3000
11	031203-01	apart	1800 JAMES AVE MIAMI BEACH FL 33139-7465	water	2	2078	2297	1980
11	031229-00	condo	1820 JAMES AVE MIAMI BEACH FL 33139-7423	water	1.5	0	0	0
11	033373-00	comm	1701 WASHINGTON AVE MIAMI BEACH FL 33139-7513	water	2	101	92	94
11	033373-00	comm	1701 WASHINGTON AVE MIAMI BEACH FL 33139-7513	water	1.5	642	719	731
11	033373-00	comm	1701 WASHINGTON AVE MIAMI BEACH FL 33139-7513	water	1	657	943	846
11	033381-00	condo	1750 JAMES AVE MIAMI BEACH FL 33139-7507	water	3	1795	1895	2886
11 11	033399-00	condo	1776 JAMES AVE MIAMI BEACH FL 33139-7507	water	1.5 1.5	760 294	1095	970 323
11	033530-00 033589-00	comm condo	1757 JAMES AVE MIAMI BEACH FL 33139-7508 1725 JAMES AVE MIAMI BEACH FL 33139-7508	water water	1.5	634	288 703	574
11	0335670-00	hotel	1741 COLLINS AVE MIAMI BEACH FL 33139-2006	water	3	6980	8548	7707
11	033712-00	hotel	1757 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	3000	3000	3000
11	034058-00	hotel	1680 COLLINS AVE MIAMI BEACH FL 33139-3137	water	2	1225	1364	1222
11	034058-00	hotel	1680 COLLINS AVE MIAMI BEACH FL 33139-3137	water	2	1261	1407	1251
11	042457-01	comm	1500 COLLINS AVE MIAMI BEACH FL 33139-3111	water	2	2219	2876	3158
11	077107-03	apart	1947 PARK AVE MIAMI BEACH FL 33139-1946	water	1.5	379	438	364
11	077107-03	apart	1947 PARK AVE MIAMI BEACH FL 33139-1946	water	1.5	374	484	429
11	077115-01	apart	1935 PARK AVE MIAMI BEACH FL 33139-1921	water	1	207	506	346
11	077412-01	apart	2115 WASHINGTON AVE MIAMI BEACH FL 33139-1826	water	2	45	56	34
11 11	077412-01 077891-00	apart comm	2115 WASHINGTON AVE MIAMI BEACH FL 33139-1826 2330 LIBERTY AVE MIAMI BEACH FL 33139	water water	2 1	117 0	140 1	109 1
11	118729-00	city	2000 1/2 WASHINGTON AVE MIAMI BEACH FL 33139	water	2	0	0	0
11	118729-00	city	2010 1/2 WASHINGTON AVE MIAMI BEACH FL 33139	water	6	0	0	0
11	118729-00	city	1900 1/2 WASHINGTON AVE MIAMI BEACH FL 33139	water	2	0	0	0
11	283556-00	condo	1621 COLLINS AVE MIAMI BEACH FL 33139-3112	water	3	0	0	0
11	283564-00	condo	1621 COLLINS AVE MIAMI BEACH FL 33139-3112	water	3	2743	3754	2776
11	290155-01	apart	220 23RD ST MIAMI BEACH FL 33139-1714	water	2	1778	2318	1859
11	299768-00	comm	331 23RD ST MIAMI BEACH FL 33139-1715	water	1	185	181	173
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	0	0	0
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	391	436	516
11 11	310607-01 310607-01		2001 COLLINS AVE MIAMI BEACH FL 33139-1913 2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water water	2	655 693	719 767	794 841
11	310607-01		2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	487	537	608
11	310607-01		2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	0	0	0
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	553	582	637
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	1029	1233	1371
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	491	532	603
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	718	1171	1311
11	310607-01		2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	3305	4550	4236
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	618	685	756
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	602	654	739
11	310607-01	condo	2001 COLLINS AVE MIAMI BEACH FL 33139-1913	water	2	3388	4591	4258
11 11	321786-00 500671-02	comm	1654 COLLINS AVE MIAMI BEACH FL 33139-3137 2216 PARK AVE MIAMI BEACH FL 33139-1722	water water	2	524 0	1098 0	57 0
11	500671-02	hotel	2216 PARK AVE MIAMI BEACH FL 33139-1722	water	2	1631	2526	1646
11	500672-01	comm	2236 COLLINS AVE MIAMI BEACH FL 33139-1718	water	2	0	0	0
11	500672-01	comm	2236 COLLINS AVE MIAMI BEACH FL 33139-1718	water	3	158	300	209
11	500672-01	comm	2236 COLLINS AVE MIAMI BEACH FL 33139-1718	water	2	9	64	10
11	501011-01	hotel	230 20TH ST MIAMI BEACH FL 33139-1906	water	2	117	74	224
11	501012-01	hotel	1900 COLLINS AVE MIAMI BEACH FL 33139-1912	water	2	40	39	41
11	502139-00	apart	2150 PARK AVE MIAMI BEACH FL 33139-1709	water	1.5	0	621	545
11	502356-00	city	2201 1/2 PARK AVE MIAMI BEACH FL 33139	water	2	0	0	0
11	502356-00	city	2200 1/2 PARK AVE MIAMI BEACH FL 33139-1722	water	2	115	64	140
11	502593-00	hotel	150 20TH ST MIAMI BEACH FL 33139-1904	water	2	1232	935	1081
11 11	502593-00 502594-02	hotel comm	150 20TH ST MIAMI BEACH FL 33139-1904 2000 COLLINS AVE MIAMI BEACH FL 33139	water water	2	1085 1255	834 1627	969 1633
11	502594-02	comm	2000 COLLINS AVE MIAMI BEACH FL 33139	water	2	0	0	0
11	502594-02	comm	2000 COLLINS AVE MIAMI BEACH FL 33139	water	2	2605	3861	3625
11			2000 COLLINS AVE MIAMI BEACH FL 33139	water	2	2296	3369	3171
11	503121-01	comm	1676 COLLINS AVE MIAMI BEACH FL 33139-3137	water	1.5	30	31	33
11	503122-01	apart	2001 WASHINGTON AVE MIAMI BEACH FL 33139-1982	water	2	1728	1958	1664



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ck.co.	503295-00	comm	2218 COLLINS AVE MIAMI BEACH FL 33139-1718	water	0.625	0	0	
11	503554-01	comm	336 21ST ST MIAMI BEACH FL 33139-1783	water	2	500	271	333
11	503554-01	comm	336 21ST ST MIAMI BEACH FL 33139-1783	water	2 2	0	0	0
11 11	503730-01	city city	1940 PARK AVE MIAMI BEACH FL 33139-1989 1975 WASHINGTON AVE MIAMI BEACH FL 33139-1973	water water	2	0 17	0 33	0 32
11	503734-01 503936-00	hotel	1520 COLLINS AVE MIAMI BEACH FL 33139-1975	water	2	548	647	680
11	503936-00	hotel	1520 COLLINS AVE MIAMI BEACH FL 33139-3111	water	1.5	380	265	344
11	504153-00	comm	1918 LIBERTY AVE MIAMI BEACH FL 33139-1940	water	1.5	3692	1477	1136
11	504652-01	apart	334 20TH ST MIAMI BEACH FL 33139-1908	water	2	132	925	1388
11	504888-01	apart	300 17TH ST MIAMI BEACH FL 33139-7501	water	1.5	0	0	239
11	504888-01	apart	300 17TH ST MIAMI BEACH FL 33139-7501	water	2	128	164	129
11	504888-01	apart	300 17TH ST MIAMI BEACH FL 33139-7501	water	2	333	466	382
11	504888-01	apart	300 17TH ST MIAMI BEACH FL 33139-7501	water	2	124	170	150
11	505291-00	comm	1905 COLLINS AVE MIAMI BEACH FL 33139-1911	water	0.625	195	132	142
11	505582-00	comm	1670 COLLINS AVE MIAMI BEACH FL 33139-3137	water	0.625	10	12	20
11	505583-01	city	1965 WASHINGTON AVE MIAMI BEACH FL 33139-1973	water	1	106	104	46
11	505590-01	comm	318 21ST ST MIAMI BEACH FL 33139-1703	water	1.5	0	0	0
11	505835-00	apart	1900 LIBERTY AVE MIAMI BEACH FL 33139-1939	water	1	278	374	319
11	505836-00	apart	355 19TH ST MIAMI BEACH FL 33139-7404	water	1	1685	1606	436
11 11	505836-00 506190-00	apart hotel	355 19TH ST MIAMI BEACH FL 33139-7404 1680 JAMES AVE MIAMI BEACH FL 33139-3115	water	1 2	351 1281	569 1520	477 1760
11	506380-02	comm	1506 COLLINS AVE MIAMI BEACH FL 33139-3111	water water	2	1045	1107	1302
11	506763-03	hotel	1775 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	4443	5222	4821
11	507127-00	hotel	1931 COLLINS AVE MIAMI BEACH FL 33139-1911	water	1	16	19	15
11	507338-00	hotel	1850 COLLINS AVE MIAMI BEACH FL 33139-7413	water	2	1522	3826	3899
11	507338-00	hotel	1850 COLLINS AVE MIAMI BEACH FL 33139-7413	water	2	1603	2558	2609
11	507460-01	hotel	1610 COLLINS AVE MIAMI BEACH FL 33139-3113	water	2	64	137	290
11	508116-00	hotel	1550 COLLINS AVE MIAMI BEACH FL 33139-3111	water	2	2008	2227	2300
11	509024-00	hotel	100 21ST ST MIAMI BEACH FL 33139-1701	water	2	5151	6096	5229
11	509024-00	hotel	100 21ST ST MIAMI BEACH FL 33139-1701	water	2	7654	8932	7829
11	509024-00	hotel	100 21ST ST MIAMI BEACH FL 33139-1701	water	1.5	0	0	0
11	509318-00	comm	210 23RD ST MIAMI BEACH FL 33139-1714	water	1.5	216	239	194
11	509508-01	comm	1826 COLLINS AVE MIAMI BEACH FL 33139-7413	water	2	25	0	69
11	509508-01	comm	1826 COLLINS AVE MIAMI BEACH FL 33139-7413	water	2	140	211	139
11	509631-02	apart	337 20TH ST MIAMI BEACH FL 33139-1907	water	2	1849	2228	2159
11	509716-00	hotel	1685 COLLINS AVE MIAMI BEACH FL 33139-3136	water	3	11331	8663	8681
11	509955-00	hotel	1701 JAMES AVE MIAMI BEACH FL 33139-7508	water	2	1459	1452	1444
11 11	510262-00	apart	1919 LIBERTY AVE MIAMI BEACH FL 33139-1913	water	1 1	295	719	275 297
11	510262-00	apart	1919 LIBERTY AVE MIAMI BEACH FL 33139-1913 229 19TH ST MIAMI BEACH FL 33139-7402	water water	1.5	267 45	336 44	43
11	510263-01 510264-01	apart apart	1915 LIBERTY AVE MIAMI BEACH FL 33139-1402	water	1.5	0	0	43
11	510645-00	condo	1801 COLLINS AVE MIAMI BEACH FL 33139-7414	water	2	6060	7809	7332
11	510645-00	condo	1801 COLLINS AVE MIAMI BEACH FL 33139-7414	water	2	7090	9345	8636
11	510689-00	condo	100 LINCOLN RD MIAMI BEACH FL 33139-2013	water	3	3231	14555	15447
11	510689-00	condo	100 LINCOLN RD MIAMI BEACH FL 33139-2013	water	3	20418	31042	27889
11	510689-00	condo	100 LINCOLN RD MIAMI BEACH FL 33139-2013	water	0.625	5	11	9
11	511084-01	condo	435 21ST ST MIAMI BEACH FL 33139-1704	water	3	1130	1764	2016
11	511084-01	condo	435 21ST ST MIAMI BEACH FL 33139-1704	water	0.625	0	0	0
11	511336-00	comm	1662 COLLINS AVE MIAMI BEACH FL 33139-3137	water	2	1116	1215	1197
11	511392-01	hotel	2100 PARK AVE MIAMI BEACH FL 33139-1709	water	3	2384	2700	2394
11	511479-00	comm	2218 COLLINS AVE MIAMI BEACH FL 33139-1718	water	0.625	0	0	0
11	511574-00	comm	1775 WASHINGTON AVE MIAMI BEACH FL 33139-7541	water	2	979	1272	1092
11	511574-00	comm	1775 WASHINGTON AVE MIAMI BEACH FL 33139-7541	water	2	975	1980	1457
11	511634-01	hotel	1677 COLLINS AVE MIAMI BEACH FL 33139-3136	water	2	4806	6071	5011
11	511634-01	hotel	1677 COLLINS AVE MIAMI BEACH FL 33139-3136	water	2	4484	5473	4548
11	511693-00	hotel	1751 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	0	0	0
11	511746-00	condo	1881 WASHINGTON AVE MIAMI BEACH FL 33139-7444	water	2	1515	2100	1440
11 11	511746-00 511941-00	condo comm	1881 WASHINGTON AVE MIAMI BEACH FL 33139-7444 1751 WASHINGTON AVE MIAMI BEACH FL 33139-7541	water water	2 1.5	1686 927	2325 514	1597 407
11	511941-00	hotel	1650 JAMES AVE MIAMI BEACH FL 33139-7341	water	1.5	0	0	0
11	511942-00	hotel	1650 JAMES AVE MIAMI BEACH FL 33139-3115	water	3	4041	6180	4897
11	511942-00	hotel	1650 JAMES AVE MIAMI BEACH FL 33139-3115	water	1.5	50	79	85
11	512076-00	hotel	1921 COLLINS AVE MIAMI BEACH FL 33139-1911	water	2	107	272	219
11	512313-00	comm	1906 COLLINS AVE MIAMI BEACH FL 33139-1912	water	0.625	1256	1737	1641
11	512317-00	comm	1912 COLLINS AVE MIAMI BEACH FL 33139-1912	water	0.625	0	0	0
11	512491-00	hotel	1670 JAMES AVE MIAMI BEACH FL 33139-3115	water	1.5	2019	1984	1855
11	512494-00	hotel	1666 JAMES AVE MIAMI BEACH FL 33139	water	1	175	227	203
11	512494-00	hotel	1666 JAMES AVE MIAMI BEACH FL 33139	water	1.5	815	909	785
11	512679-00	comm	1960 PARK AVE MIAMI BEACH FL 33139-1992	water	1.5	1238	1229	1046
11	512731-00	apart	1849 JAMES AVE MIAMI BEACH FL 33139-7424	water	1.5	1634	1792	1914
11	512799-00	hotel	1720 COLLINS AVE MIAMI BEACH FL 33139-2007	water	2	3032	4249	3722
11	512862-00	comm	1601 COLLINS AVE MIAMI BEACH FL 33139-3112	water	4	22775	28376	10759
11	512862-00	comm	1601 COLLINS AVE MIAMI BEACH FL 33139-3112	water	3	17594	22063	9356
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	1	149	171	162
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	1.5	1220	1407	927
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	3	0	0	0
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	1	0	0	0
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	2	619	792	1133
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	2	819	985	1317
11 11	512946-00 512946-00	hotel hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911 1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water water	2 1.5	76 0	83 0	72 0
11	J14J4U-UU	notei	TOOT COLFUED WAS IMMINII BEWOLL LE 20102-1211	water	1.3	0	U	U



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ck.co.	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	2	132	236	190
11	512946-00	hotel	1901 COLLINS AVE MIAMI BEACH FL 33139-1911	water	2	1566	2184	2799
11 11	512971-00 513234-00	comm	2312 LIBERTY AVE MIAMI BEACH FL 33139 1503 OCEAN DR MIAMI BEACH FL 33139-3110	water water	2	82 1373	115 1389	110 1421
11	513234-00	comm	1503 OCEAN DR MIAMI BEACH FL 33139-3110	water	2	0	0	0
11	513235-00	comm	211 23RD ST MIAMI BEACH FL 33139-1713	water	1.5	56	65	59
11	513561-00	comm	1627 COLLINS AVE MIAMI BEACH FL 33139-3112	water	1	635	658	553
11	513690-00	hotel	318 20TH ST MIAMI BEACH FL 33139-1908	water	2	995	1648	1086
11	513916-01	hotel	1671 COLLINS AVE MIAMI BEACH FL 33139-3136	water	2	1714	2105	2093
11	513916-01	hotel	1671 COLLINS AVE MIAMI BEACH FL 33139-3136	water	2	1805	2341	2342
11	514086-00	apart	1676 JAMES AVE MIAMI BEACH FL 33139-3115	water	1.5	1030	914	939
11	514165-01	hotel	2000 LIBERTY AVE MIAMI BEACH FL 33139-1920	water	2	0	0	1
11	514165-01	hotel	2000 LIBERTY AVE MIAMI BEACH FL 33139-1920	water	1.5	2836	3841	2928
11	514248-00	condo	1500 OCEAN DR MIAMI BEACH FL 33139-3105	water	2	558	623	665
11	514248-00	condo	1500 OCEAN DR MIAMI BEACH FL 33139-3105	water	2	593	658	700
11	514248-00	condo	1500 OCEAN DR MIAMI BEACH FL 33139-3105	water	2	560	618	637
11 11	514448-00 515059-00	condo comm	1700 JAMES AVE MIAMI BEACH FL 33139-7507 247 23RD ST MIAMI BEACH FL 33139-1713	water	2 0.625	1060 0	962 0	1112 0
11	515060-00	comm	247 23RD ST MIAMI BEACH FL 33139-1713 247 23RD ST MIAMI BEACH FL 33139-1713	water water	1	235	377	198
11	515732-01	hotel	1530 COLLINS AVE MIAMI BEACH FL 33139-3111	water	2	2199	2741	2287
11	5157999-01	hotel	236 21ST ST MIAMI BEACH FL 33139-1785	water	1.5	513	609	537
11	515999-01	hotel	236 21ST ST MIAMI BEACH FL 33139-1785	water	2	2055	2549	2404
11	516395-00	hotel	1776 COLLINS AVE MIAMI BEACH FL 33139-2007	water	2	511	1470	1334
11	516395-00	hotel	1776 COLLINS AVE MIAMI BEACH FL 33139-2007	water	2	2172	1532	1403
11	516420-00	res	237 20TH ST MIAMI BEACH FL 33139-1905	water	2	432	543	493
11	517039-00	comm	323 23RD ST MIAMI BEACH FL 33139-1715	water	0.625	0	0	0
11	517039-00	comm	323 23RD ST MIAMI BEACH FL 33139-1715	water	2	48	69	47
11	517281-00	comm	1735 JAMES AVE MIAMI BEACH FL 33139-7508	water	1.5	0	0	0
11	517282-00	condo	1745 JAMES AVE MIAMI BEACH FL 33139-7508	water	1.5	3577	4016	3360
11	517295-01	comm	100 LINCOLN RD MIAMI BEACH FL 33139-2013	water	1.5	11	5	14
11	517751-00	condo	1840 JAMES AVE MIAMI BEACH FL 33139-7423	water	1.5	1438	847	729
11	518097-00	condo	1501 COLLINS AVE MIAMI BEACH FL 33139-3110	water	1	1117	1311	1062
11	518295-00	comm	1626 COLLINS AVE MIAMI BEACH FL 33139-3113	water	1.5	31	109	21
11 11	518504-01	comm	1475 COLLINS AVE MIAMI BEACH FL 33139-4103	water	2	0	0	0
11	518663-00 518663-00	comm	155 LINCOLN RD MIAMI BEACH FL 33139-2001 155 LINCOLN RD MIAMI BEACH FL 33139-2001	water water	2	4716 4526	6228 5957	5350 5227
11	518663-00	comm	155 LINCOLN RD MIAMI BEACH FL 33139-2001	water	2	5708	7629	6678
11	518663-00	comm	155 LINCOLN RD MIAMI BEACH FL 33139-2001	water	2	4258	5688	4886
11	519084-01	apart	1775 JAMES AVE MIAMI BEACH FL 33139-7508	water	2	1143	1362	1102
11	519293-01	comm	1817 JAMES AVE MIAMI BEACH FL 33139-7494	water	2	1217	1574	974
11	519295-01	comm	1831 JAMES AVE MIAMI BEACH FL 33139-7424	water	1.5	0	0	0
11	519295-01	comm	1831 JAMES AVE MIAMI BEACH FL 33139-7424	water	2	1147	1349	1429
11	519295-01	comm	1831 JAMES AVE MIAMI BEACH FL 33139-7424	water	2	1129	1327	1396
11	519296-01	apart	1835 JAMES AVE MIAMI BEACH FL 33139-7424	water	1.5	0	1	0
11	519450-01	comm	2140 PARK AVE MIAMI BEACH FL 33139-1749	water	1.5	170	157	138
11	519451-01	comm	2135 WASHINGTON CT MIAMI BEACH FL 33139-1828	water	2	61	93	104
11	519555-01	hotel	1701 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	0	0	0
11	519555-01	hotel	1701 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	3272	3777	3451
11	519555-01	hotel	1701 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	3224	3709	3373
11	519555-01	hotel	1701 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	2333	2617	2354
11	519555-01	hotel	1701 COLLINS AVE MIAMI BEACH FL 33139-2006	water	2	1484	1853	1520
11	519689-00	hotel	1756 COLLINS AVE MIAMI BEACH FL 33139-2007	water	2	5361	5256	4300
11 11	519690-00 519784-01	hotel condo	1740 COLLINS AVE MIAMI BEACH FL 33139-2007 2160 PARK AVE MIAMI BEACH FL 33139-1709	water	2 1.5	3814	6132 262	5216 174
11	520044-03	hotel	1700 COLLINS AVE MIAMI BEACH FL 33139-1709	water water	2	149 1099	1743	1780
11	520044-03	hotel	1700 COLLINS AVE MIAMI BEACH FL 33139-2007	water	2	1063	1559	1646
11	520148-00	city	400 1/2 17TH ST MIAMI BEACH FL 33139	water	2	57	52	0
11	520161-00	comm	227 W 22ND ST MIAMI BEACH FL 33139-1707	water	2	308	308	273
11	520161-00	comm	227 W 22ND ST MIAMI BEACH FL 33139-1707	water	2	236	236	210
11	520260-03	hotel	1545 COLLINS AVE MIAMI BEACH FL 33139-3110	water	2	1412	2725	2264
11	520260-03	hotel	1545 COLLINS AVE MIAMI BEACH FL 33139-3110	water	2	3034	3916	3291
11	520260-03	hotel	1545 COLLINS AVE MIAMI BEACH FL 33139-3110	water	2	2911	3749	3143
11	520260-03	hotel	1545 COLLINS AVE MIAMI BEACH FL 33139-3110	water	2	2798	3622	3026
11	520260-03	hotel	1545 COLLINS AVE MIAMI BEACH FL 33139-3110	water	2	2709	3497	2932
11	520543-00	condo	1751 JAMES AVE MIAMI BEACH FL 33139-7508	water	1.5	372	345	342
11	520549-00	condo	2228 PARK AVE MIAMI BEACH FL 33139-1722	water	1	50	190	62
11	520549-00	condo	2228 PARK AVE MIAMI BEACH FL 33139-1722	water	1	19	9	25
11	520596-00	comm	239 23RD ST MIAMI BEACH FL 33139-1713	water	0.625	0	0	0
11	520933-01	hotel	300 21ST ST MIAMI BEACH FL 33139-1703	water	2	2209	2608	2321
11	521039-00	condo	2129 WASHINGTON AVE MIAMI BEACH FL 33139-1826	water	2	327	436	438
11	521159-00	hotel	1690 COLLINS AVE MIAMI BEACH FL 33139-3137	water	1.5	0	2052	0
11 11	521160-00 521160-00	comm	1685 JAMES AVE MIAMI BEACH FL 33139-3114 1685 JAMES AVE MIAMI BEACH FL 33139-3114	water	3	2561 3505	3053	3201 3410
11	521160-00	comm	1685 JAMES AVE MIAMI BEACH FL 33139-3114  1685 JAMES AVE MIAMI BEACH FL 33139-3114	water water	2	3595 789	3769 1025	3410 1526
11	521325-03	hotel	1825 COLLINS AVE MIAMI BEACH FL 33139-7414	water	2	746	552	622
11	521325-03	hotel	1825 COLLINS AVE MIAMI BEACH FL 33139-7414	water	2	2450	3431	3354
11	521325-03	hotel	1825 COLLINS AVE MIAMI BEACH FL 33139-7414	water	2	2238	3141	3081
11	521325-03	hotel	1825 COLLINS AVE MIAMI BEACH FL 33139-7414	water	2	2279	3203	3157
11	521402-01	hotel	1920 COLLINS AVE MIAMI BEACH FL 33139-1912	water	2	0	287	250
11	521458-00	comm	2201 COLLINS AVE APT 4 MIAMI BEACH FL 33139-1717	water	2	0	0	0
11	521458-00	comm	2201 COLLINS AVE APT 4 MIAMI BEACH FL 33139-1717	water	2	11266	14287	13912



K.60.	521458-00	comm	2201 COLLINS AVE APT 4 MIAMI BEACH FL 33139-1717	water	2	11341	14312	1393
11	521458-00	comm	2201 COLLINS AVE APT 4 MIAMI BEACH FL 33139-1717	water	2	0	0	1
11	521458-00	comm	2201 COLLINS AVE APT 4 MIAMI BEACH FL 33139-1717	water	2	10939	13710	13423
11	576777-01	city	2111 COLLINS AVE MIAMI BEACH FL 33139	water	1.5	813	1256	1087
11	576783-00	res	235 23RD ST MIAMI BEACH FL 33139-1713	water	2	431	1147	1079
11	576932-00	comm	2155 WASHINGTON CT MIAMI BEACH FL 33139-1828	water	2	0	0	0
11	576932-00	comm	2155 WASHINGTON CT MIAMI BEACH FL 33139-1828	water	2	269	397	280
11	576932-00	comm	2155 WASHINGTON CT MIAMI BEACH FL 33139-1828	water	2	255	378	268

 Basin 11 Total Consumption:
 June 2016
 July 2016
 August 2016

 477,348
 413,752

1,069.33



OFF	Acct Type	Service Lo	Use_Type	Meter Size	Augt_2016	Basin ID
1558-00	condo	5801 COLLINS AVE MIAMI BEACH FL 33140-2223	water	2	Augi_2010	631.00 27A
080317-00	condo	5500 COLLINS AVE MIAMI BEACH FL 33140-2520	water	1.5		588.00 27A
080317-00	condo	5500 COLLINS AVE MIAMI BEACH FL 33140-2520	water	2		1725.00 27A
080358-00	condo	5701 COLLINS AVE MIAMI BEACH FL 33140-2302	water	1.5		5248.00 27A
080713-00	condo	5660 COLLINS AVE MIAMI BEACH FL 33140-2401	water	2		2591.00 27A
510048-00	condo	5743 COLLINS AVE MIAMI BEACH FL 33140-2302	water	1.5		1495.00 27A
510230-00	condo	5900 COLLINS AVE MIAMI BEACH FL 33140-2260	water	1		0.00 27A
511031-00	condo	5601 COLLINS AVE MIAMI BEACH FL 33140-2402	water	1.5		13676.00 27A
511031-00	condo	5601 COLLINS AVE MIAMI BEACH FL 33140-2402	water	1.5		2531.00 27A
513021-00	condo	5600 COLLINS AVE MIAMI BEACH FL 33140-2400	water	3		6239.00 27A
514558-00	condo	5801 COLLINS AVE MIAMI BEACH FL 33140-2223	water	0.625		103.00 27A
520789-00	comm	5875 COLLINS AVE MIAMI BEACH FL 33140-2223	water	1		1138.00 27A
520789-00	comm	5875 COLLINS AVE MIAMI BEACH FL 33140-2223	water	1		1194.00 27A
576774-01	city	5600 COLLINS AVE MIAMI BEACH FL 33140-2400	water	0.625		0.00 27A
576774-01	city	5400 COLLINS AVE MIAMI BEACH FL 33140	water	2		231.00 27A
080242-00	condo	5555 COLLINS AVE MIAMI BEACH FL 33140-2521	water	3		8152.00 27A
080242-00	condo	5555 COLLINS AVE MIAMI BEACH FL 33140-2521	water	3		7476.00 27A
080325-00	condo	5500 COLLINS AVE MIAMI BEACH FL 33140-2520	water	3		0.00 27A
080325-00	condo	5500 COLLINS AVE MIAMI BEACH FL 33140-2520	water	3		6823.00 27A
080341-00	condo	5640 COLLINS AVE MIAMI BEACH FL 33140-2401	water	2		1720.00 27A
080358-00	condo	5701 COLLINS AVE MIAMI BEACH FL 33140-2302	water	2		4300.00 27A
080358-00	condo	5701 COLLINS AVE MIAMI BEACH FL 33140-2302	water	2		5085.00 27A
080358-00	condo	5701 COLLINS AVE MIAMI BEACH FL 33140-2302	water	2		4163.00 27A
080366-00	condo	5775 COLLINS AVE MIAMI BEACH FL 33140-2302	water	3		4695.00 27A
080382-00	condo	5825 COLLINS AVE MIAMI BEACH FL 33140-2223	water	3		5251.00 27A
080382-00	condo	5825 COLLINS AVE MIAMI BEACH FL 33140-2223	water	3		0.00 27A
080713-00	condo	5660 COLLINS AVE MIAMI BEACH FL 33140-2401	water	3		3920.00 27A
080713-00	condo	5660 COLLINS AVE MIAMI BEACH FL 33140-2401	water	3		3866.00 27A
080747-00	comm	5800 COLLINS AVE MIAMI BEACH FL 33140	water	2		861.00 27A
080754-00	condo	5838 COLLINS AVE MIAMI BEACH FL 33140-2221	water	3		6269.00 27A
118786-00	city	5400 1/2 COLLINS AVE MIAMI BEACH FL 33140	water	0.625		880.00 27A
306761-00	condo	5750 COLLINS AVE MIAMI BEACH FL 33140-2301	water	3		0.00 27A
306761-00	condo	5750 COLLINS AVE MIAMI BEACH FL 33140-2301	water	3		3711.00 27A
320168-00	condo	5845 COLLINS AVE MIAMI BEACH FL 33140-2223	water	2		430.00 27A
320168-00	condo	5845 COLLINS AVE MIAMI BEACH FL 33140-2223	water	2		414.00 27A
506208-00	condo	5880 COLLINS AVE MIAMI BEACH FL 33140-2261	water	2		2138.00 27A
506208-00	condo	5880 COLLINS AVE MIAMI BEACH FL 33140-2261	water	2		1624.00 27A
507664-00	condo	5445 COLLINS AVE MIAMI BEACH FL 33140-2519	water	3		26509.00 27A
507664-00	condo	5445 COLLINS AVE MIAMI BEACH FL 33140-2519	water	3		29696.00 27A
510049-00	condo	5757 COLLINS AVE MIAMI BEACH FL 33140-2302	water	3		5292.00 27A
510049-00	condo	5757 COLLINS AVE MIAMI BEACH FL 33140-2302	water	3		5021.00 27A
510230-00	condo	5900 COLLINS AVE MIAMI BEACH FL 33140-2260	water	2		1960.00 27A
510230-00	condo	5900 COLLINS AVE MIAMI BEACH FL 33140-2260	water	1.5		324.00 27A
510230-00	condo	5900 COLLINS AVE MIAMI BEACH FL 33140-2260	water	2		2510.00 27A
511031-00	condo	5601 COLLINS AVE MIAMI BEACH FL 33140-2402	water	3		5650.00 27A
511031-00	condo	5601 COLLINS AVE MIAMI BEACH FL 33140-2402	water	3		5550.00 27A
511186-00	condo	5411 COLLINS AVE MIAMI BEACH FL 33140-2519	water	2		1734.00 27A
511186-00	condo	5411 COLLINS AVE MIAMI BEACH FL 33140-2519	water	2		1348.00 27A
512032-00	condo	5700 COLLINS AVE MIAMI BEACH FL 33140-2301	water	4		765.00 27A
512032-00	condo	5700 COLLINS AVE MIAMI BEACH FL 33140-2301	water	3		6136.00 27A
512032-00	condo	5700 COLLINS AVE MIAMI BEACH FL 33140-2301	water	3		6044.00 27A
513021-00	condo	5600 COLLINS AVE MIAMI BEACH FL 33140-2400	water	3		6150.00 27A
513021-00	condo	5600 COLLINS AVE MIAMI BEACH FL 33140-2400	water	3		6420.00 27A
514558-00	condo	5801 COLLINS AVE MIAMI BEACH FL 33140-2223	water	2		586.00 27A
514558-00	condo	5801 COLLINS AVE MIAMI BEACH FL 33140-2223	water	2		566.00 27A
520789-00	comm	5875 COLLINS AVE MIAMI BEACH FL 33140-2223	water	2		2778.00 27A
520789-00	comm	5875 COLLINS AVE MIAMI BEACH FL 33140-2223	water	2		2739.00 27A
520789-00	comm	5875 COLLINS AVE MIAMI BEACH FL 33140-2223	water	2		3199.00 27A
320703-00	COMMIN	3073 COLLINS AVE IVIIAIVII DEACH 1E 33140-2223	water	-		3133.00 Z/A

193386.00

433.21

CK.COFF	AcctType	ServLoc	UseType	MeterSize	Sept_2016 Basin_ID
513999-00	condo	5151 COLLINS AVE MIAMI BEACH FL 33140-2707	water	3	0.00 27B
520148-00	city	5301 COLLINS AVE MIAMI BEACH FL 33140-2649	water	2	870.00 27B
080085-00	condo	5055 COLLINS AVE MIAMI BEACH FL 33140-2749	water	2	4135.00 27B
080135-00	condo	5255 COLLINS AVE MIAMI BEACH FL 33140-2572	water	2	831.00 27B
080135-00	condo	5255 COLLINS AVE MIAMI BEACH FL 33140-2572	water	1	0.00 27B
118794-00 118794-00	city city	4600 1/2 COLLINS AVE MIAMI BEACH FL 33140 4700 1/2 COLLINS AVE MIAMI BEACH FL 33140	water water	2 0.625	2698.00 27B 22.00 27B
132969-00	condo	4925 COLLINS AVE MIAMI BEACH FL 33140-2703	water	2	1641.00 27B
506951-00	condo	5001 COLLINS AVE MIAMI BEACH FL 33140-2705	water	2	14.00 27B
507474-00	condo	5005 COLLINS AVE MIAMI BEACH FL 33140-2704	water	1	45.00 27B
508184-00	condo	5313 COLLINS AVE MIAMI BEACH FL 33140-2649	water	1	0.00 27B
508266-00	condo	5225 COLLINS AVE MIAMI BEACH FL 33140-2514	water	3	11177.00 27B
508266-00	condo	5225 COLLINS AVE MIAMI BEACH FL 33140-2514	water	1	17.00 27B
511625-00	comm	4710 COLLINS AVE MIAMI BEACH FL 33140	water	2	0.00 27B
511733-00	comm	4900 COLLINS AVE MIAMI BEACH FL 33140	water	2	0.00 27B
511734-00	comm	4800 COLLINS AVE MIAMI BEACH FL 33140 5025 COLLINS AVE MIAMI BEACH FL 33140-2749	water	2	233.00 27B
511796-00 511796-00	condo condo	5025 COLLINS AVE MIAMI BEACH FL 33140-2749 5025 COLLINS AVE MIAMI BEACH FL 33140-2749	water water	1.5	945.00 27B 2.00 27B
511790-00	hotel	4833 COLLINS AVE MIAMI BEACH FL 33140-2749	water	1.5	174.00 27B
512134-01	hotel	4833 COLLINS AVE MIAMI BEACH FL 33140-2751	water	2	9622.00 27B
513123-00	condo	5101 COLLINS AVE APT 8U MIAMI BEACH FL 33140-2725	water	3	12809.00 27B
513999-00	condo	5151 COLLINS AVE MIAMI BEACH FL 33140-2707	water	3	6378.00 27B
513999-00	condo	5151 COLLINS AVE MIAMI BEACH FL 33140-2707	water	2	1023.00 27B
517340-00	comm	4777 COLLINS AVE MIAMI BEACH FL 33140-3217	water	2	1808.00 27B
520148-00	city	5301 COLLINS AVE MIAMI BEACH FL 33140-2649	water	1.5	512.00 27B
520499-00	comm	4835 COLLINS AVE MIAMI BEACH FL 33140-2751	water	2	14083.00 27B
520499-00	comm	4835 COLLINS AVE MIAMI BEACH FL 33140-2751	water	2	15021.00 27B
576774-01 576774-01	city	4900 COLLINS AVE MIAMI BEACH FL 33140 5255 COLLINS AVE MIAMI BEACH FL 33140-2572	water	0.625 1.5	104.00 27B
576774-01	city city	4740 COLLINS AVE MIAMI BEACH FL 33140-2372	water water	1.5	428.00 27B 89.00 27B
576774-01	city	4747 COLLINS AVE MIAMI BEACH FL 33140-3217	water	1.5	0.00 27B
576774-01	city	5255 1/2 COLLINS AVE MIAMI BEACH FL 33140-2516	water	0.625	0.00 27B
576775-01	city	4600 1/2 COLLINS AVE MIAMI BEACH FL 33140	water	2	0.00 27B
576776-01	city	5005 1/2 COLLINS AVE MIAMI BEACH FL 33140-2704	water	0.625	0.00 27B
576776-01	city	4600 1/2 COLLINS AVE MIAMI BEACH FL 33140	water	2	0.00 27B
576776-01	city	4600 1/2 COLLINS AVE MIAMI BEACH FL 33140	water	0.625	0.00 27B
576777-01	city	5315 1/2 COLLINS AVE MIAMI BEACH FL 33140-2517	water	0.625	0.00 27B
576778-01	city	5151 1/2 COLLINS AVE MIAMI BEACH FL 33140-2707	water	0.625	0.00 27B
576778-01	city	4775 1/2 COLLINS AVE MIAMI BEACH FL 33140-3217	water	1.5	0.00 27B
079699-00	condo	4747 COLLINS AVE MIAMI BEACH FL 33140-3217	water	3	7631.00 27B
079699-00	condo	4747 COLLINS AVE MIAMI BEACH FL 33140-3217	water	3	7890.00 27B
080085-00	condo	5055 COLLINS AVE MIAMI BEACH FL 33140-2749	water	2	2158.00 27B
080085-00	condo	5055 COLLINS AVE MIAMI BEACH FL 33140-2749 5055 COLLINS AVE MIAMI BEACH FL 33140-2749	water	2	5768.00 27B 2722.00 27B
080085-00 080135-00	condo condo	5255 COLLINS AVE MIAMI BEACH FL 33140-2749	water water	2 4	9536.00 27B
080150-00	condo	5333 COLLINS AVE MIAMI BEACH FL 33140-2517	water	2	3948.00 27B
080150-00	condo	5333 COLLINS AVE MIAMI BEACH FL 33140-2517	water	2	3847.00 27B
118422-00	city	5303 1/2 COLLINS AVE MIAMI BEACH FL 33140-2649	water	2	289.00 27B
132969-00	condo	4925 COLLINS AVE MIAMI BEACH FL 33140-2703	water	3	1899.00 27B
500305-00	condo	5401 COLLINS AVE MIAMI BEACH FL 33140-2519	water	3	16581.00 27B
500305-00	condo	5401 COLLINS AVE MIAMI BEACH FL 33140-2519	water	2	23.00 27B
500305-00	condo	5401 COLLINS AVE MIAMI BEACH FL 33140-2519	water	3	11874.00 27B
500316-00	condo	5401 COLLINS AVE MIAMI BEACH FL 33140-2519	water	1	126.00 27B
506951-00	condo	5001 COLLINS AVE MIAMI BEACH FL 33140-2705	water	3	4202.00 27B
506951-00	condo	5001 COLLINS AVE MIAMI BEACH FL 33140-2705	water	3	3822.00 27B
507474-00	condo	5005 COLLINS AVE MIAMI BEACH FL 33140-2704	water	3	9932.00 27B
507474-00	condo	5005 COLLINS AVE MIAMI BEACH FL 33140-2704	water	3	9958.00 27B
508184-00	condo	5313 COLLINS AVE MIAMI BEACH FL 33140-2649	water	3	5909.00 27B
508266-00 508266-00	condo condo	5225 COLLINS AVE MIAMI BEACH FL 33140-2514 5225 COLLINS AVE MIAMI BEACH FL 33140-2514	water	3	9814.00 27B 7857.00 27B
511796-00	condo	5025 COLLINS AVE MIAMI BEACH FL 33140-2514 5025 COLLINS AVE MIAMI BEACH FL 33140-2749	water water	2	1852.00 27B
511796-00	condo	5025 COLLINS AVE MIAMI BEACH FL 33140-2749	water	3	2393.00 27B
				-	2,2,22 4,2

POF-XChange

796-00	condo	5025 COLLINS AVE MIAMI BEACH FL 33140-2749	water	2	507.00 27B
512134-01	hotel	4833 COLLINS AVE MIAMI BEACH FL 33140-2751	water	3	2145.00 27B
512134-01	hotel	4833 COLLINS AVE MIAMI BEACH FL 33140-2751	water	3	12136.00 27B
513123-00	condo	5101 COLLINS AVE APT 8U MIAMI BEACH FL 33140-2725	water	3	13988.00 27B
513123-00	condo	5101 COLLINS AVE APT 8U MIAMI BEACH FL 33140-2725	water	3	317.00 27B
513999-00	condo	5151 COLLINS AVE MIAMI BEACH FL 33140-2707	water	3	11367.00 27B
517339-00	condo	4775 COLLINS AVE MIAMI BEACH FL 33140-3217	water	3	7106.00 27B
517339-00	condo	4775 COLLINS AVE MIAMI BEACH FL 33140-3217	water	3	7834.00 27B
517340-00	comm	4777 COLLINS AVE MIAMI BEACH FL 33140-3217	water	3	2654.00 27B
517340-00	comm	4777 COLLINS AVE MIAMI BEACH FL 33140-3217	water	2	0.00 27B
517341-00	condo	4779 COLLINS AVE MIAMI BEACH FL 33140-3217	water	3	9022.00 27B
517341-00	condo	4779 COLLINS AVE MIAMI BEACH FL 33140-3217	water	3	0.00 27B
517341-00	condo	4779 COLLINS AVE MIAMI BEACH FL 33140-3217	water	2	0.00 27B
520499-00	comm	4835 COLLINS AVE MIAMI BEACH FL 33140-2751	water	2	545.00 27B
520499-00	comm	4835 COLLINS AVE MIAMI BEACH FL 33140-2751	water	2	0.00 27B
520499-00	comm	4835 COLLINS AVE MIAMI BEACH FL 33140-2751	water	2	0.00 27B
520836-00	hotel	4525 COLLINS AVE MIAMI BEACH FL 33140-3226	water	2	2183.00 27B
520836-00	hotel	4525 COLLINS AVE MIAMI BEACH FL 33140-3226	water	4	13241.00 27B

water

water

water

4

3

4525 COLLINS AVE MIAMI BEACH FL 33140-3226

4525 COLLINS AVE MIAMI BEACH FL 33140-3226

5255 1/2 COLLINS AVE MIAMI BEACH FL 33140-2516

520836-00

520836-00

576775-01

hotel

hotel

city

319974.00 740.68

0.00 27B

21228.00 27B

989.00 27B





E. C.	Country	HaaTima	Matagria	Court 2016 Posity ID
comm	ServLoc 4101 INDIAN CREEK DR MIAMI BEACH FL 33140-3214	UseType deduct	MeterSize 0.625	Sept_2016 Basin_ID 0.00 28D
comm	2401 PINE TREE DR MIAMI BEACH FL 33140-4629	deduct	1	1369.00 28D
res	2925 FLAMINGO DR MIAMI BEACH FL 33140-3916	deduct	0.625	16.00 28D
res	2912 FLAMINGO DR MIAMI BEACH FL 33140-3917	water	1	14.00 28D
res condo	2525 PINE TREE DR MIAMI BEACH FL 33140-4320 2655 COLLINS AVE MIAMI BEACH FL 33140-4704	water water	1.5 4	69.00 28D 6653.00 28D
comm	2400 PINE TREE DR MIAMI BEACH FL 33140-4704	water	3	1545.00 28D
comm	2400 PINE TREE DR MIAMI BEACH FL 33140-4699	water	2	24.00 28D
condo	3501 INDIAN CREEK DR MIAMI BEACH FL 33140-4015	water	2	0.00 28D
condo	3200 COLLINS AVE MIAMI BEACH FL 33140-4024	water	3	2783.00 28D
hotel hotel	2901 COLLINS AVE MIAMI BEACH FL 33140-4104 2901 COLLINS AVE MIAMI BEACH FL 33140-4104	water water	3 2	6973.00 28D 0.00 28D
hotel	2901 COLLINS AVE MIAMI BEACH TE 33140-4104 2901 COLLINS AVE MIAMI BEACH FL 33140-4104	water	2	0.00 28D
comm	2705 COLLINS AVE MIAMI BEACH FL 33140-4405	water	1.5	402.00 28D
hotel	2912 COLLINS AVE MIAMI BEACH FL 33140-4105	water	2	1.00 28D
hotel	2912 COLLINS AVE MIAMI BEACH FL 33140-4105	water	4	0.00 28D
comm hotel	2401 PINE TREE DR MIAMI BEACH FL 33140-4629 4333 COLLINS AVE MIAMI BEACH FL 33140-3212	water water	1.5 1	1378.00 28D 14.00 28D
hotel	3925 COLLINS AVE MIAMI BEACH FL 33140-3711	water	2	0.00 28D
condo	2618 COLLINS AVE MIAMI BEACH FL 33140-4705	water	3	5700.00 28D
hotel	4041 COLLINS AVE APT 1502 MIAMI BEACH FL 33140-3762	water	3	2859.00 28D
comm	2601 COLLINS AVE MIAMI BEACH FL 33140-4782	water	1	96.00 28D
hotel comm	4200 COLLINS AVE MIAMI BEACH FL 33140-3229 3651 COLLINS AVE MIAMI BEACH FL 33140-4009	water water	1.5 2	31.00 28D 0.00 28D
comm	232 30TH ST MIAMI BEACH FL 33140	water	2	1.00 28D
res	2675 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	2	114.00 28D
res	2601 FLAMINGO DR MIAMI BEACH FL 33140-4315	water	1.5	82.00 28D
res	2563 FLAMINGO PL MIAMI BEACH FL 33140-4318	water	1	27.00 28D
condo	2655 COLLINS AVE MIAMI BEACH FL 33140-4704	water	2	29.00 28D
condo	3425 COLLINS AVE MIAMI BEACH FL 33140-4005 3425 COLLINS AVE MIAMI BEACH FL 33140-4005	water	2	0.00 28D
condo comm	2400 PINE TREE DR MIAMI BEACH FL 33140-4699	water water	1	0.00 28D 0.00 28D
comm	2400 PINE TREE DR MIAMI BEACH FL 33140-4699	water	1.5	575.00 28D
city	2700 1/2 INDIAN CREEK DR MIAMI BEACH FL 33139	water	2	0.00 28D
city	2425 1/2 PINE TREE DR MIAMI BEACH FL 33140-4629	water	0.625	1.00 28D
condo	2401 COLLINS AVE MIAMI BEACH FL 33140-4702	water	1.5	0.00 28D
res condo	2653 FLAMINGO DR MIAMI BEACH FL 33140-4316 2555 COLLINS AVE MIAMI BEACH FL 33140-4703	water water	2	41.00 28D 5284.00 28D
condo	3200 COLLINS AVE MIAMI BEACH FL 33140-4703	water	2	37.00 28D
condo	4301 COLLINS AVE MIAMI BEACH FL 33140-3212	water	1.5	477.00 28D
condo	2625 COLLINS AVE MIAMI BEACH FL 33140-4704	water	2	740.00 28D
res	2570 FLAMINGO DR MIAMI BEACH FL 33140-4315	water	1	592.00 28D
hotel	2901 COLLINS AVE MIAMI BEACH FL 33140-4104	water	2	0.00 28D
hotel hotel	2901 COLLINS AVE MIAMI BEACH FL 33140-4104 2901 COLLINS AVE MIAMI BEACH FL 33140-4104	water water	0.625 2	0.00 28D 608.00 28D
res	2637 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	1.5	0.00 28D
condo	2457 COLLINS AVE MIAMI BEACH FL 33140-4702	water	1.5	1573.00 28D
comm	2421 LAKE PANCOAST DR MIAMI BEACH FL 33140-4627	water	1.5	90.00 28D
hotel	4299 COLLINS AVE MIAMI BEACH FL 33140-3228	water	1.5	0.00 28D
comm res	3601 COLLINS AVE MIAMI BEACH FL 33140-4009 2545 FLAMINGO DR MIAMI BEACH FL 33140-4314	water	2 1	255.00 28D 202.00 28D
condo	3600 COLLINS AVE MIAMI BEACH FL 33140-4010	water water	1.5	248.00 28D
condo	3588 COLLINS AVE MIAMI BEACH FL 33140-4008	water	1.5	0.00 28D
res	2840 FLAMINGO DR MIAMI BEACH FL 33140-3915	water	1	38.00 28D
condo	2600 COLLINS AVE MIAMI BEACH FL 33140-4705	water	0.625	422.00 28D
hotel	3025 COLLINS AVE MIAMI BEACH FL 33140-4106	water	2	6182.00 28D
condo condo	3411 INDIAN CREEK DR MIAMI BEACH FL 33140-4014 3901 INDIAN CREEK DR MIAMI BEACH FL 33140-3742	water water	2 1.5	51.00 28D 0.00 28D
condo	4201 COLLINS AVE MIAMI BEACH FL 33140-3228	water	2	912.00 28D
res	2900 FLAMINGO DR MIAMI BEACH FL 33140-3917	water	1	205.00 28D
hotel	2912 COLLINS AVE MIAMI BEACH FL 33140-4105	water	2	695.00 28D
res	222 39TH ST MIAMI BEACH FL 33140	water	0.625	261.00 28D
res	2505 FLAMINGO PL MIAMI BEACH FL 33140-4318	water	1	113.00 28D
res hotel	2850 FLAMINGO DR MIAMI BEACH FL 33140-3915 3101 COLLINS AVE MIAMI BEACH FL 33140-4108	water water	1 2	190.00 28D 4634.00 28D
res	2945 FLAMINGO DR MIAMI BEACH FL 33140-3916	water	1	360.00 28D
res	2534 FLAMINGO DR MIAMI BEACH FL 33140-4315	water	1	116.00 28D
hotel	3737 COLLINS AVE MIAMI BEACH FL 33140-4011	water	1.5	0.00 28D
hotel	3737 COLLINS AVE MIAMI BEACH FL 33140-4011	water	2	2317.00 28D
hotel	4333 COLLINS AVE MIAMI BEACH FL 33140-3212	water	1.5	5760.00 28D
hotel hotel	4333 COLLINS AVE MIAMI BEACH FL 33140-3212 4101 COLLINS AVE MIAMI BEACH FL 33140-3210	water water	2 1.5	0.00 28D 80.00 28D
res	3737 INDIAN CREEK DR MIAMI BEACH FL 33140-4019	water	2	438.00 28D
res	2543 PINE TREE DR MIAMI BEACH FL 33140-4320	water	0.625	201.00 28D
res	2630 FLAMINGO DR MIAMI BEACH FL 33140-4317	water	1	29.00 28D
res	2545 FLAMINGO PL MIAMI BEACH FL 33140-4314	water	1	77.00 28D
res	2505 FLAMINGO DR MIAMI BEACH FL 33140-4314	water	1 0.625	589.00 28D
res	4218 COLLINS AVE MIAMI BEACH FL 33140-3229 2561 PINE TREE DR MIAMI BEACH FL 33140-4320	water water	0.625 0.625	488.00 28D 33.00 28D





COFF	3925 COLLINS AVE MIAMI BEACH FL 33140-3711	water	2	62.00 28D
notel	3925 COLLINS AVE MIAMI BEACH FL 33140-3711	water	2	937.00 28D
res	2501 PINE TREE DR MIAMI BEACH FL 33140-4320	water	1	1.00 28D
comm	2400 COLLINS AVE MIAMI BEACH FL 33140-4732	water	0.625	56.00 28D
res	2940 FLAMINGO DR MIAMI BEACH FL 33140-3917	water	1	113.00 28D
res	2687 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	1	0.00 28D
hotel comm	4041 COLLINS AVE APT 1502 MIAMI BEACH FL 33140-3762 2322 COLLINS AVE MIAMI BEACH FL 33139-1604	water	2	4423.00 28D 1.00 28D
condo	2301 COLLINS AVE INIAMII BEACH FL 33139-1604 2301 COLLINS AVE PH 8 MIAMI BEACH FL 33139-1601	water water	2	541.00 28D
condo	2301 COLLINS AVE PH 8 MIAMI BEACH FL 33139-1601	water	2	4841.00 28D
res	2515 FLAMINGO DR MIAMI BEACH FL 33140-4314	water	1	547.00 28D
res	2575 FLAMINGO DR MIAMI BEACH FL 33140-4312	water	1.5	39.00 28D
apart	2425 FLAMINGO PL MIAMI BEACH FL 33140-4623	water	1	0.00 28D
city	100 39TH ST MIAMI BEACH FL 33140	water	2	0.00 28D
city	2401 1/2 PINE TREE DR MIAMI BEACH FL 33140	water	1	546.00 28D
city	2395 1/2 LAKE PANCOAST DR MIAMI BEACH FL 33140	water	1	193.00 28D
city hotel	2365 1/2 PINE TREE DR MIAMI BEACH FL 33140 3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water water	1	127.00 28D 1784.00 28D
hotel	3201 COLLINS AVE MIAMI BEACH TE 33140-4023	water	2	5701.00 28D
hotel	3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water	2	0.00 28D
hotel	3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water	2	4900.00 28D
hotel	3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water	2	2332.00 28D
hotel	3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water	2	1339.00 28D
comm	2727 INDIAN CREEK DR MIAMI BEACH FL 33140-4493	water	1	0.00 28D
hotel	4391 COLLINS AVE MIAMI BEACH FL 33140-3212	water	2	12.00 28D
comm	4401 COLLINS AVE MIAMI BEACH FL 33140-3227	water	2	0.00 28D
comm	4401 COLLINS AVE MIAMI BEACH FL 33140-3227 4401 COLLINS AVE MIAMI BEACH FL 33140-3227	water	2	21072.00 28D 570.00 28D
comm	4401 COLLINS AVE MIAMI BEACH TE 33140-3227	water water	2	472.00 28D
comm	4401 COLLINS AVE MIAMI BEACH FL 33140-3227	water	2	0.00 28D
hotel	4441 COLLINS AVE MIAMI BEACH FL 33140-3227	water	2	0.00 28D
hotel	4441 COLLINS AVE MIAMI BEACH FL 33140-3227	water	3	32638.00 28D
hotel	4441 COLLINS AVE MIAMI BEACH FL 33140-3227	water	4	8955.00 28D
res	2621 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	2	0.00 28D
res	2525 FLAMINGO PL MIAMI BEACH FL 33140-4318	water	1	214.00 28D
res	2525 FLAMINGO PL MIAMI BEACH FL 33140-4318 2360 COLLINS AVE MIAMI BEACH FL 33139-1604	water	1	208.00 28D 3808.00 28D
comm hotel	4385 COLLINS AVE MIAMI BEACH FL 33140-3212	water water	2	0.00 28D
comm	228 W 40TH ST MIAMI BEACH FL 33140	water	1	0.00 28D
apart	3720 COLLINS AVE MIAMI BEACH FL 33140-4012	water	1	444.00 28D
condo	3801 COLLINS AVE MIAMI BEACH FL 33140-3705	water	2	5313.00 28D
hotel	4360 COLLINS AVE MIAMI BEACH FL 33140	water	1	990.00 28D
city	2700 1/2 COLLINS AVE MIAMI BEACH FL 33140-4406	water	1	0.00 28D
city	2687 1/2 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	1	0.00 28D
city	4211 INDIAN CREEK DR MIAMI BEACH FL 33140-3215 2535 1/2 PINE TREE DR MIAMI BEACH FL 33140-4320	water	0.625 1.5	0.00 28D 216.00 28D
city city	2700 1/2 COLLINS AVE MIAMI BEACH FL 33140-4406	water water	2	209.00 28D
city	100 40TH ST MIAMI BEACH FL 33140	water	2	495.00 28D
city	2445 1/2 PINE TREE DR MIAMI BEACH FL 33140-4611	water	1.5	0.00 28D
city	2300 PINE TREE DR MIAMI BEACH FL 33140-4698	water	1.5	0.00 28D
city	2300 PINE TREE DR MIAMI BEACH FL 33140-4698	water	1.5	0.00 28D
city	2351 1/2 PINE TREE DR MIAMI BEACH FL 33140-4652	water	1.5	95.00 28D
city	3400 1/2 COLLINS AVE MIAMI BEACH FL 33140-4006	water	1.5	0.00 28D
city	2701 1/2 INDIAN CREEK DR MIAMI BEACH FL 33140-4429 3011 1/2 COLLINS AVE MIAMI BEACH FL 33140-4106	water	0.625	0.00 28D 8.00 28D
city res	221 28TH ST MIAMI BEACH FL 33140-4403	water water	1	0.00 28D
comm	232 30TH ST MIAMI BEACH FL 33140	water	1	223.00 28D
res	2645 PINE TREE DR MIAMI BEACH FL 33140-4321	water	1	105.00 28D
res	2625 PINE TREE DR MIAMI BEACH FL 33140-4321	water	1	7.00 28D
res	2601 PINE TREE DR MIAMI BEACH FL 33140-4321	water	1	398.00 28D
res	2644 FLAMINGO DR MIAMI BEACH FL 33140-4317	water	1.5	42.00 28D
res	2675 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	1.5	166.00 28D
res	2601 FLAMINGO DR MIAMI BEACH FL 33140-4315 2901 FLAMINGO DR MIAMI BEACH FL 33140-3916	water	1	43.00 28D
res res	2908 FLAMINGO DR MIAMI BEACH FL 33140-3910	water water	1.5 1	1000.00 28D 163.00 28D
res	2563 FLAMINGO PL MIAMI BEACH FL 33140-4318	water	1.5	20.00 28D
comm	2425 PINE TREE DR MIAMI BEACH FL 33140-4629	water	3	160.00 28D
condo	2445 FLAMINGO PL MIAMI BEACH FL 33140-4623	water	1.5	310.00 28D
condo	2455 FLAMINGO DR MIAMI BEACH FL 33140-4806	water	2	538.00 28D
comm	2318 COLLINS AVE MIAMI BEACH FL 33139-1604	water	2	73.00 28D
condo	2655 COLLINS AVE MIAMI BEACH FL 33140-4704	water	4	6439.00 28D
condo	2899 COLLINS AVE MIAMI BEACH FL 33140-4407	water	2	7527.00 28D
condo	2899 COLLINS AVE MIAMI BEACH FL 33140-4407 2899 COLLINS AVE MIAMI BEACH FL 33140-4407	water	2	7241.00 28D 7518.00 28D
condo apart	3100 COLLINS AVE MIAMI BEACH FL 33140-4407	water water	3	0.00 28D
apart	222 36TH ST MIAMI BEACH FL 33140-4002	water	0.625	73.00 28D
condo	3624 COLLINS AVE MIAMI BEACH FL 33140-4010	water	1.5	390.00 28D
condo	229 W 36TH ST MIAMI BEACH FL 33140-4001	water	0.625	54.00 28D
condo	229 W 36TH ST MIAMI BEACH FL 33140-4001	water	1	1.00 28D
comm	3605 INDIAN CREEK DR MIAMI BEACH FL 33140-4003	water	2	295.00 28D





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rinn	3800 COLLINS AVE MIAMI BEACH FL 33140-3710	water	4	8706.00 28D
notel	3900 COLLINS AVE MIAMI BEACH FL 33140-3712	water	2	2111.00 28D
comm	227 39TH ST MIAMI BEACH FL 33140	water	1.5	681.00 28D
comm	4101 INDIAN CREEK DR MIAMI BEACH FL 33140-3214	water	2	361.00 28D
hotel	216 43RD ST MIAMI BEACH FL 33140-3209	water	2	2737.00 28D
city	2300 PINE TREE DR MIAMI BEACH FL 33140-4698	water	2	43.00 28D
city	2300 PINE TREE DR MIAMI BEACH FL 33140-4698	water	1.5	0.00 28D
city	2300 PINE TREE DR MIAMI BEACH FL 33140-4698	water	2	27.00 28D
city	2300 PINE TREE DR MIAMI BEACH FL 33140-4698	water	2	1419.00 28D
apart	2445 PINE TREE DR MIAMI BEACH FL 33140-4611	water	1	125.00 28D
condo	2924 COLLINS AVE MIAMI BEACH FL 33140-4105	water	3	345.00 28D
condo	215 30TH ST MIAMI BEACH FL 33140-4101	water	1.5	821.00 28D
condo	3621 COLLINS AVE MIAMI BEACH FL 33140-4009	water	2	3798.00 28D
condo	2401 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	1413.00 28D
condo	2401 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	1428.00 28D
condo	2401 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	1475.00 28D
condo	2401 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	1476.00 28D
condo	2625 COLLINS AVE MIAMI BEACH FL 33140-4704	water	4	1493.00 28D
condo	2625 COLLINS AVE MIAMI BEACH FL 33140-4704	water	4	2211.00 28D
condo	3501 INDIAN CREEK DR MIAMI BEACH FL 33140-4015	water	2	466.00 28D
condo	4141 COLLINS AVE MIAMI BEACH FL 33140-3210	water	2	675.00 28D
condo	4141 COLLINS AVE MIAMI BEACH FL 33140-3210	water	2	623.00 28D
condo	4015 INDIAN CREEK DR MIAMI BEACH FL 33140-3708	water	1	589.00 28D
condo	4122 COLLINS AVE MIAMI BEACH FL 33140-3211	water	2	179.00 28D
condo	2939 INDIAN CREEK DR MIAMI BEACH FL 33140-4110	water	3	0.00 28D
res	2653 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	0.625	94.00 28D
condo	2555 COLLINS AVE MIAMI BEACH FL 33140-4703	water	2	4305.00 28D
condo	2555 COLLINS AVE MIAMI BEACH FL 33140-4703	water	2	5234.00 28D
condo	2555 COLLINS AVE MIAMI BEACH FL 33140-4703	water	2	4720.00 28D
condo	3200 COLLINS AVE MIAMI BEACH FL 33140-4024	water	3	0.00 28D
condo	4301 COLLINS AVE MIAMI BEACH FL 33140-3212	water	3	2529.00 28D
condo	3637 INDIAN CREEK DR MIAMI BEACH FL 33140-4032	water	2	849.00 28D
condo	2457 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	828.00 28D
condo	2457 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	905.00 28D
res	2570 FLAMINGO DR MIAMI BEACH FL 33140-4315	water	1.5	93.00 28D
condo	2444 FLAMINGO PL MIAMI BEACH FL 33140-4368	water	1	128.00 28D
hotel	2901 COLLINS AVE MIAMI BEACH FL 33140-4104	water	3	20562.00 28D
hotel	2901 COLLINS AVE MIAMI BEACH FL 33140-4104	water	3	177.00 28D
res	2637 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	0.625	129.00 28D
res	320 W 26TH ST MIAMI BEACH FL 33140-4305	water	1.5	180.00 28D
condo	2457 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	867.00 28D
comm	2830 COLLINS AVE MIAMI BEACH FL 33140-4408	water	1.5	0.00 28D
apart	2456 FLAMINGO DR FLAMINGO MIAMI BEACH FL 33140-4649	water	1.5	277.00 28D
comm	2421 LAKE PANCOAST DR MIAMI BEACH FL 33140-4627	water	2	727.00 28D
comm	2445 LAKE PANCOAST DR MIAMI BEACH FL 33140-4627	water	2	1274.00 28D
res	2655 PINE TREE DR MIAMI BEACH FL 33140-4321	water	1.5	588.00 28D
hotel	4299 COLLINS AVE MIAMI BEACH FL 33140-3228	water	2	4517.00 28D
hotel	4299 COLLINS AVE MIAMI BEACH FL 33140-3228	water	2	4524.00 28D
res	225 37TH ST MIAMI BEACH FL 33140-4025	water	0.625	28.00 28D
comm	3601 COLLINS AVE MIAMI BEACH FL 33140-4009	water	2	2973.00 28D
condo	3101 INDIAN CREEK DR MIAMI BEACH FL 33140-4157	water	2	1384.00 28D
res	2545 FLAMINGO DR MIAMI BEACH FL 33140-4314	water	1	1051.00 28D
res	325 W 26TH ST MIAMI BEACH FL 33140-4304	water	1.5	200.00 28D
condo	2829 INDIAN CREEK DR MIAMI BEACH FL 33140-4753	water	3	2217.00 28D
condo	2829 INDIAN CREEK DR MIAMI BEACH FL 33140-4753	water	3	2166.00 28D
hotel	2700 COLLINS AVE MIAMI BEACH FL 33140-4406	water	2	1290.00 28D
apart	222 28TH ST MIAMI BEACH FL 33140-4404	water	1.5	182.00 28D
apart	2365 PINE TREE DR MIAMI BEACH FL 33140-4610	water	1.5	2415.00 28D
apart	2335 PINE TREE DR MIAMI BEACH FL 33140-4628	water	1.5	1412.00 28D
apart	2315 PINE TREE DR MIAMI BEACH FL 33140-4613	water	1	1662.00 28D
apart	320 W 24TH ST MIAMI BEACH FL 33140-4606	water	1	463.00 28D
apart	2380 FLAMINGO DR MIAMI BEACH FL 33140-4684		1.5	1088.00 28D
•	2370 FLAMINGO DR MIAMI BEACH FL 33140-4622	water	1.5	814.00 28D
apart	2395 LAKE PANCOAST DR MIAMI BEACH FL 33140-4803	water	1.5	317.00 28D
comm		water		
apart	2420 FLAMINGO DR MIAMI BEACH FL 33140-4630	water	1.5	281.00 28D
apart	334 W 25TH ST MIAMI BEACH FL 33140-4619	water	1.5	439.00 28D
condo	4021 INDIAN CREEK DR MIAMI BEACH FL 33140-3708	water	2	457.00 28D
condo	3600 COLLINS AVE MIAMI BEACH FL 33140-4010	water	2	264.00 28D
condo		water	2	27.00 28D
hotel	3588 COLLINS AVE MIAMI BEACH FL 33140-4008		2	
	2730 COLLINS AVE MIAMI BEACH FL 33140-4406	water	2	1456.00 28D
apart	2730 COLLINS AVE MIAMI BEACH FL 33140-4406 2814 COLLINS AVE MIAMI BEACH FL 33140-4408	water water	2	0.00 28D
res	2730 COLLINS AVE MIAMI BEACH FL 33140-4406 2814 COLLINS AVE MIAMI BEACH FL 33140-4408 2840 FLAMINGO DR MIAMI BEACH FL 33140-3915	water water water	2 1	0.00 28D 364.00 28D
res condo	2730 COLLINS AVE MIAMI BEACH FL 33140-4406 2814 COLLINS AVE MIAMI BEACH FL 33140-4408 2840 FLAMINGO DR MIAMI BEACH FL 33140-3915 2600 COLLINS AVE MIAMI BEACH FL 33140-4705	water water water water	2 1 2	0.00 28D 364.00 28D 459.00 28D
res condo condo	2730 COLLINS AVE MIAMI BEACH FL 33140-4406 2814 COLLINS AVE MIAMI BEACH FL 33140-4408 2840 FLAMINGO DR MIAMI BEACH FL 33140-3915 2600 COLLINS AVE MIAMI BEACH FL 33140-4705 2600 COLLINS AVE MIAMI BEACH FL 33140-4705	water water water water water	2 1 2 2	0.00 28D 364.00 28D 459.00 28D 350.00 28D
res condo condo hotel	2730 COLLINS AVE MIAMI BEACH FL 33140-4406 2814 COLLINS AVE MIAMI BEACH FL 33140-4408 2840 FLAMINGO DR MIAMI BEACH FL 33140-3915 2600 COLLINS AVE MIAMI BEACH FL 33140-4705 2600 COLLINS AVE MIAMI BEACH FL 33140-4705 3025 COLLINS AVE MIAMI BEACH FL 33140-4106	water water water water water water	2 1 2 2 2	0.00 28D 364.00 28D 459.00 28D 350.00 28D 6588.00 28D
res condo condo	2730 COLLINS AVE MIAMI BEACH FL 33140-4406 2814 COLLINS AVE MIAMI BEACH FL 33140-4408 2840 FLAMINGO DR MIAMI BEACH FL 33140-3915 2600 COLLINS AVE MIAMI BEACH FL 33140-4705 2600 COLLINS AVE MIAMI BEACH FL 33140-4705	water water water water water	2 1 2 2	0.00 28D 364.00 28D 459.00 28D 350.00 28D





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ico are	4121 INDIAN CREEK DR MIAMI BEACH FL 33140-3297	water	2	1002.00 28D
condo	3411 INDIAN CREEK DR MIAMI BEACH FL 33140-4014	water	2	554.00 28D
condo	3411 INDIAN CREEK DR MIAMI BEACH FL 33140-4014	water	2	600.00 28D
condo condo	3901 INDIAN CREEK DR MIAMI BEACH FL 33140-3742 3901 INDIAN CREEK DR MIAMI BEACH FL 33140-3742	water water	2	127.00 28D 154.00 28D
apart	2440 FLAMINGO DR MIAMI BEACH FL 33140-4605	water	1.5	720.00 28D
condo	4201 COLLINS AVE MIAMI BEACH FL 33140-3228	water	2	2280.00 28D
condo	4201 COLLINS AVE MIAMI BEACH FL 33140-3228	water	2	2253.00 28D
res	2900 FLAMINGO DR MIAMI BEACH FL 33140-3917	water	1.5	50.00 28D
hotel	2912 COLLINS AVE MIAMI BEACH FL 33140-4105	water	2	0.00 28D
comm	2530 PINE TREE DR MIAMI BEACH FL 33140-4367	water	1.5	491.00 28D
condo	2463 PINE TREE DR MIAMI BEACH FL 33140-4629	water	1.5	193.00 28D
condo	406 W 25TH ST MIAMI BEACH FL 33140-4620	water	1.5	101.00 28D
hotel	230 31ST ST MIAMI BEACH FL 33140-4103 224 31ST ST MIAMI BEACH FL 33140-4103	water water	0.625 1.5	1469.00 28D
res	2505 FLAMINGO PL MIAMI BEACH FL 33140-4318	water	1.5	1278.00 28D 35.00 28D
condo	255 W 24TH ST MIAMI BEACH FL 33140-4672	water	2	1385.00 28D
condo	3700 COLLINS AVE MIAMI BEACH FL 33140-4012	water	2	1729.00 28D
condo	3710 COLLINS AVE MIAMI BEACH FL 33140-4012	water	1.5	1191.00 28D
condo	4000 COLLINS AVE MIAMI BEACH FL 33140-3714	water	2	1.00 28D
condo	4000 COLLINS AVE MIAMI BEACH FL 33140-3714	water	2	66.00 28D
condo	3025 INDIAN CREEK DR MIAMI BEACH FL 33140-4151	water	2	1058.00 28D
res	2850 FLAMINGO DR MIAMI BEACH FL 33140-3915	water	1	50.00 28D
res	2550 FLAMINGO DR MIAMI BEACH FL 33140-4315	water	1.5	216.00 28D
condo	4025 INDIAN CREEK DR MIAMI BEACH FL 33140-3708 4343 COLLINS AVE MIAMI BEACH FL 33140-3212	water	1.5 2	641.00 28D 7012.00 28D
hotel hotel	4343 COLLINS AVE MIAMI BEACH FL 33140-3212	water water	2	6238.00 28D
condo	2642 COLLINS AVE MIAMI BEACH FL 33140-4705	water	3	2031.00 28D
hotel	3101 COLLINS AVE MIAMI BEACH FL 33140-4108	water	2	4736.00 28D
hotel	3101 COLLINS AVE MIAMI BEACH FL 33140-4108	water	2	4417.00 28D
hotel	3101 COLLINS AVE MIAMI BEACH FL 33140-4108	water	2	2541.00 28D
apart	2811 INDIAN CREEK DR MIAMI BEACH FL 33140-4712	water	1	5.00 28D
res	2945 FLAMINGO DR MIAMI BEACH FL 33140-3916	water	1.5	98.00 28D
apart	225 W 27TH ST MIAMI BEACH FL 33140-4401	water	1.5	966.00 28D
res	2534 FLAMINGO DR MIAMI BEACH FL 33140-4315 4001 INDIAN CREEK DR MIAMI BEACH FL 33140-3723	water	1 1.5	62.00 28D 810.00 28D
apart res	2925 FLAMINGO DR MIAMI BEACH FL 33140-3723	water water	1.5	312.00 28D
apart	241 28TH ST MIAMI BEACH FL 33140-4403	water	1	63.00 28D
comm	2469 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	5275.00 28D
comm	2469 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	2788.00 28D
hotel	3737 COLLINS AVE MIAMI BEACH FL 33140-4011	water	2	5141.00 28D
hotel	3737 COLLINS AVE MIAMI BEACH FL 33140-4011	water	2	0.00 28D
condo	3120 COLLINS AVE MIAMI BEACH FL 33140-4109	water	2	26.00 28D
condo	3120 COLLINS AVE MIAMI BEACH FL 33140-4109	water	1.5	72.00 28D
hotel condo	4333 COLLINS AVE MIAMI BEACH FL 33140-3212 3801 INDIAN CREEK DR MIAMI BEACH FL 33140-3707	water water	2	16618.00 28D 3066.00 28D
hotel	4101 COLLINS AVE MIAMI BEACH FL 33140-3210	water	2	9848.00 28D
hotel	4101 COLLINS AVE MIAMI BEACH FL 33140-3210	water	2	8244.00 28D
res	3737 INDIAN CREEK DR MIAMI BEACH FL 33140-4019	water	2	851.00 28D
res	3737 INDIAN CREEK DR MIAMI BEACH FL 33140-4019	water	2	422.00 28D
res	2543 PINE TREE DR MIAMI BEACH FL 33140-4320	water	1	31.00 28D
hotel	3500 COLLINS AVE MIAMI BEACH FL 33140-4008	water	2	2372.00 28D
apart	3003 INDIAN CREEK DR MIAMI BEACH FL 33140-4111	water	1.5	26.00 28D
res	2630 FLAMINGO DR MIAMI BEACH FL 33140-4317 2915 FLAMINGO DR MIAMI BEACH FL 33140-3916	water	1	94.00 28D
res	2545 FLAMINGO DR MIAMI BEACH FL 33140-3916 2545 FLAMINGO PL MIAMI BEACH FL 33140-4314	water	1	127.00 28D 42.00 28D
res	2505 FLAMINGO PE MIAMI BEACH FL 33140-4314	water water	1.5	128.00 28D
apart	237 W 38TH ST MIAMI BEACH FL 33140-3702	water	0.625	187.00 28D
res	2561 PINE TREE DR MIAMI BEACH FL 33140-4320	water	1	85.00 28D
apart	2385 FLAMINGO DR MIAMI BEACH FL 33140-4621	water	1	292.00 28D
hotel	3925 COLLINS AVE MIAMI BEACH FL 33140-3711	water	2	7358.00 28D
hotel	3925 COLLINS AVE MIAMI BEACH FL 33140-3711	water	2	7683.00 28D
hotel	3925 COLLINS AVE MIAMI BEACH FL 33140-3711	water	4	2592.00 28D
res	2501 PINE TREE DR MIAMI BEACH FL 33140-4320 129 26TH ST MIAMI BEACH FL 33140-4745	water	1	67.00 28D 2168.00 28D
hotel hotel	129 26TH ST MIAMI BEACH FL 33140-4745	water water	2 1.5	0.00 28D
res	2801 FLAMINGO DR MIAMI BEACH FL 33140-3914	water	1.3	159.00 28D
condo	2615 COLLINS AVE MIAMI BEACH FL 33140-4783	water	1.5	552.00 28D
comm	4130 COLLINS AVE MIAMI BEACH FL 33140-3211	water	2	1906.00 28D
res	2520 FLAMINGO DR MIAMI BEACH FL 33140-4315	water	1.5	364.00 28D
condo	4201 INDIAN CREEK DR MIAMI BEACH FL 33140-3274	water	1	307.00 28D
res	2940 FLAMINGO DR MIAMI BEACH FL 33140-3917	water	1.5	51.00 28D
comm	2925 INDIAN CREEK DR MIAMI BEACH FL 33140-4187	water	2	1873.00 28D
res	3865 INDIAN CREEK DR MIAMI BEACH FL 33140-3796 2500 FLAMINGO DR MIAMI BEACH FL 33140-4315	water water	2	5.00 28D 0.00 28D
comm	2611 COLLINS AVE MIAMI BEACH FL 33140-4782	water	0.625	16.00 28D





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riin	131 26TH ST MIAMI BEACH FL 33140-4745	water	1	130.00 28D
condo	3010 COLLINS AVE MIAMI BEACH FL 33140-4107	water	3	0.00 28D
res	2922 FLAMINGO DR MIAMI BEACH FL 33140-3917	water	1.5	83.00 28D
res res	2570 FLAMINGO DR MIAMI BEACH FL 33140-4315 2570 FLAMINGO DR MIAMI BEACH FL 33140-4315	water water	1 1	22.00 28D 64.00 28D
res	2687 FLAMINGO DR MIAMI BEACH FL 33140-4316	water	1	0.00 28D
res	4211 INDIAN CREEK DR MIAMI BEACH FL 33140-4310	water	0.625	87.00 28D
hotel	4041 COLLINS AVE APT 1502 MIAMI BEACH FL 33140-3762	water	3	3789.00 28D
hotel	4041 COLLINS AVE APT 1502 MIAMI BEACH FL 33140-3762	water	3	2212.00 28D
hotel	4041 COLLINS AVE APT 1502 MIAMI BEACH FL 33140-3762	water	3	2552.00 28D
res	2535 PINE TREE DR MIAMI BEACH FL 33140-4320	water	1.5	0.00 28D
condo	2301 COLLINS AVE MIAMI BEACH FL 33139-1608	water	4	49.00 28D
condo	2301 COLLINS AVE MIAMI BEACH FL 33139-1608	water	4	0.00 28D
condo	2301 COLLINS AVE MIAMI BEACH FL 33139-1608	water	2	0.00 28D
condo	2301 COLLINS AVE MIAMI BEACH FL 33139-1608	water	2	0.00 28D
hotel	2445 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	2560.00 28D
hotel	2445 COLLINS AVE MIAMI BEACH FL 33140-4702	water	2	2490.00 28D
apart	320 W 25TH ST MIAMI BEACH FL 33140-4619	water	1	699.00 28D
apart	233 W 27TH ST MIAMI BEACH FL 33140-4401	water	1	290.00 28D
res	2515 FLAMINGO DR MIAMI BEACH FL 33140-4314	water	1	139.00 28D
res	2575 FLAMINGO DR MIAMI BEACH FL 33140-4312	water	1	7.00 28D
apart	2425 FLAMINGO PL MIAMI BEACH FL 33140-4623	water	1.5	264.00 28D
city	3525 COLLINS AVE MIAMI BEACH FL 33140	water	3	0.00 28D
apart	240 31ST ST MIAMI BEACH FL 33140-4103	water	1	28.00 28D
apart	235 30TH ST MIAMI BEACH FL 33140-4101	water	1	0.00 28D
condo	3030 COLLINS AVE MIAMI BEACH FL 33140-4107	water	2	731.00 28D
hotel	3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water	4	0.00 28D
hotel	3201 COLLINS AVE MIAMI BEACH FL 33140-4023 3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water	2 2	50.00 28D 4996.00 28D
hotel hotel	3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water water	2	5151.00 28D
hotel	3201 COLLINS AVE MIAMI BEACH FL 33140-4023	water	4	0.00 28D
apart	2800 COLLINS AVE MIAMI BEACH FL 33140-4408	water	2	0.00 28D
apart	2800 COLLINS AVE MIAMI BEACH FL 33140-4408	water	2	1036.00 28D
res	2701 INDIAN CREEK DR MIAMI BEACH FL 33140-4429	water	1.5	1183.00 28D
apart	230 28TH ST MIAMI BEACH FL 33140-4404	water	0.625	253.00 28D
comm	2727 INDIAN CREEK DR MIAMI BEACH FL 33140-4493	water	2	5837.00 28D
hotel	4391 COLLINS AVE MIAMI BEACH FL 33140-3212	water	3	10858.00 28D
hotel	4391 COLLINS AVE MIAMI BEACH FL 33140-3212	water	3	10379.00 28D
comm	4401 COLLINS AVE MIAMI BEACH FL 33140-3227	water	3	0.00 28D
comm	4401 COLLINS AVE MIAMI BEACH FL 33140-3227	water	3	19710.00 28D
comm	4401 COLLINS AVE MIAMI BEACH FL 33140-3227	water	3	0.00 28D
hotel	4441 COLLINS AVE MIAMI BEACH FL 33140-3227	water	4	1.00 28D
hotel	4441 COLLINS AVE MIAMI BEACH FL 33140-3227	water	4	0.00 28D
hotel	4441 COLLINS AVE MIAMI BEACH FL 33140-3227	water	4	0.00 28D
hotel	4441 COLLINS AVE MIAMI BEACH FL 33140-3227	water	4	20000.00 28D
hotel	4441 COLLINS AVE MIAMI BEACH FL 33140-3227 2525 FLAMINGO PL MIAMI BEACH FL 33140-4318	water	4 1	29127.00 28D
res	2525 FLAMINGO PL MIAMI BEACH FL 33140-4318 2525 FLAMINGO PL MIAMI BEACH FL 33140-4318	water	1	4.00 28D 80.00 28D
res comm	2360 COLLINS AVE MIAMI BEACH FL 33139-1604	water water	1	0.00 28D
comm	2360 COLLINS AVE MIAMI BEACH FL 33139-1604	water	4	7665.00 28D
apart	2901 INDIAN CREEK DR MIAMI BEACH FL 33140-4110	water	1	0.00 28D
apart	2911 INDIAN CREEK DR MIAMI BEACH FL 33140-4110	water	1.5	0.00 28D
comm	2607 COLLINS AVE MIAMI BEACH FL 33140-4782	water	1.5	14.00 28D
apart	4100 COLLINS AVE MIAMI BEACH FL 33140-3211	water	2	952.00 28D
comm	2609 COLLINS AVE MIAMI BEACH FL 33140-4782	water	1.5	41.00 28D
hotel	4385 COLLINS AVE MIAMI BEACH FL 33140-3212	water	4	25424.00 28D
res	2633 PINE TREE DR MIAMI BEACH FL 33140-4321	water	1	0.00 28D
comm	228 W 40TH ST MIAMI BEACH FL 33140	water	1	518.00 28D
comm	228 W 40TH ST MIAMI BEACH FL 33140	water	1	9.00 28D
apart	3720 COLLINS AVE MIAMI BEACH FL 33140-4012	water	2	3883.00 28D
condo	3801 COLLINS AVE MIAMI BEACH FL 33140-3705	water	2	0.00 28D
condo	3801 COLLINS AVE MIAMI BEACH FL 33140-3705	water	3	1437.00 28D
condo	3801 COLLINS AVE MIAMI BEACH FL 33140-3705	water	3	0.00 28D
apart	2351 PINE TREE DR MIAMI BEACH FL 33140-4652	water	2	1644.00 28D
city	2300 PINE TREE DR MIAMI BEACH FL 33140-4698 2300 PINE TREE DR MIAMI BEACH FL 33140-4698	water	2 2	0.00 28D 246.00 28D
city res	4300 COLLINS AVE MIAMI BEACH FL 33140-4698	water water	0.625	0.00 28D
res	4300 COLLINS AVE MIAMI BEACH FL 33140	water	0.625	19.00 28D
res	4300 COLLINS AVE MIAMI BEACH FL 33140	water	0.625	22.00 28D
res	4300 COLLINS AVE MIAMI BEACH FL 33140	water	1	336.00 28D
res	4351 INDIAN CREEK DR MIAMI BEACH FL 33140	water	2	16.00 28D
res	221 28TH ST MIAMI BEACH FL 33140-4403	water	2	1054.00 28D

TOTALS 621817.00 1,440 gpm

S. C.	AcctType	ServLoc	UseType	MeterSize	Sept2016	ID	
511867-01	res	6320 ALLISON RD MIAMI BEACH FL 33141-4506	deduct	1	3ept2010	941.00 29	
515712-02	res	6633 ALLISON RD MIAMI BEACH FL 33141-4510	deduct	1.5		742.00 29	
082172-01	res	6411 ALLISON RD MIAMI BEACH FL 33141-4507	water	2		53.00 29	
503233-00	condo	6423 COLLINS AVE MIAMI BEACH FL 33141-4624	water	3		8043.00 29	
503233-00	condo	6423 COLLINS AVE MIAMI BEACH FL 33141-4624	water	3		0.00 29	
518383-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2		107.00 29	
519863-01	hotel	6261 COLLINS AVE MIAMI BEACH FL 33140-2224	water	4		4216.00 29	
576924-00	res	6105 W LAGUNA DR MIAMI BEACH FL 33141-5865	water	1		14.00 29	
576927-00	res	6107 W LAGUNA DR WEST MIAMI BEACH FL 33141-586	5 water	1		330.00 29	1
576928-00	res	6101 W LAGUNA DR MIAMI BEACH FL 33141-5865	water	1		1.00 29	í
080416-00	condo	6039 COLLINS AVE MIAMI BEACH FL 33140-2214	water	1.5		388.00 29	i
082305-01	res	6585 ALLISON RD MIAMI BEACH FL 33141-4508	water	1		167.00 29	1
082354-01	res	6596 ALLISON RD MIAMI BEACH FL 33141-4509	water	1.5		217.00 29	1
082420-00	res	6500 ALLISON RD MIAMI BEACH FL 33141-4509	water	1.5		169.00 29	
082438-00	res	6494 ALLISON RD MIAMI BEACH FL 33141-4540	water	1.5		19.00 29	
082446-02	res	6480 ALLISON RD MIAMI BEACH FL 33141-4540	water	1		754.00 29	
118794-00	city	6450 1/2 COLLINS AVE MIAMI BEACH FL 33141-4625	water	1.5		678.00 29	
341313-00	condo	6061 COLLINS AVE MIAMI BEACH FL 33140-2214	water	3		0.00 29	
366716-00	res	6550 ALLISON RD MIAMI BEACH FL 33141-4509	water	2		417.00 29	
500767-00	res	6525 ALLISON RD MIAMI BEACH FL 33141-4508	water	1.5		157.00 29	
501795-00	res	6365 ALLISON RD MIAMI BEACH FL 33141-4505	water	1 2		194.00 29	
503233-00 504462-01	condo	6423 COLLINS AVE MIAMI BEACH FL 33141-4624 6475 ALLISON RD MIAMI BEACH FL 33141-4507	water	1		2188.00 29 228.00 29	
505039-00	res res	6360 ALLISON RD MIAMI BEACH FL 33141-4506	water water	1		4.00 29	
505041-00	res	6605 ALLISON RD MIAMI BEACH FL 33141-4510	water	1		212.00 29	
505041-00	res	6431 ALLISON RD MIAMI BEACH FL 33141-4507	water	1.5		32.00 29	
507032-01	res	6341 ALLISON RD MIAMI BEACH FL 33141-4505	water	1.5		280.00 29	
508006-00	res	6325 ALLISON RD MIAMI BEACH FL 33141-4505	water	1.5		602.00 29	
510222-00	res	6520 ALLISON RD MIAMI BEACH FL 33141-4509	water	1		361.00 29	
510404-00	res	6450 ALLISON RD MIAMI BEACH FL 33141-4540	water	1.5		757.00 29	
511073-00	res	6555 ALLISON RD MIAMI BEACH FL 33141-4508	water	1		635.00 29	
511207-00	res	6470 ALLISON RD MIAMI BEACH FL 33141-4540	water	1.5		0.00 29	
511320-00	condo	6301 COLLINS AVE MIAMI BEACH FL 33141-4621	water	2		2019.00 29	
512095-00	condo	6422 COLLINS AVE MIAMI BEACH FL 33141-4607	water	1.5		650.00 29	
512232-00	res	6575 ALLISON RD MIAMI BEACH FL 33141-4508	water	0.625		971.00 29	
512451-01	res	6400 ALLISON RD MIAMI BEACH FL 33141-4540	water	1		433.00 29	
513467-00	res	6651 ALLISON RD MIAMI BEACH FL 33141-4510	water	1		114.00 29	)
514077-00	res	6391 ALLISON RD MIAMI BEACH FL 33141-4505	water	1.5		527.00 29	
514398-00	res	6505 ALLISON RD MIAMI BEACH FL 33141-4508	water	1.5		154.00 29	)
514583-00	res	6444 ALLISON RD MIAMI BEACH FL 33141-4540	water	1.5		92.00 29	)
516129-00	res	6640 ALLISON RD MIAMI BEACH FL 33141-4511	water	1.5		40.00 29	)
516401-00	res	6350 ALLISON RD MIAMI BEACH FL 33141-4506	water	2		182.00 29	ı
516526-01	res	6570 ALLISON RD MIAMI BEACH FL 33141-4509	water	1		0.00 29	1
516764-00	res	6420 ALLISON RD MIAMI BEACH FL 33141-4540	water	1		291.00 29	ı
516826-01	res	6330 ALLISON RD MIAMI BEACH FL 33141-4506	water	1		254.00 29	1
517650-02	res	6565 ALLISON RD MIAMI BEACH FL 33141-4508	water	1		130.00 29	1
517689-00	res	6535 ALLISON RD MIAMI BEACH FL 33141-4508	water	1		138.00 29	í
517770-00	condo	6000 INDIAN CREEK DR MIAMI BEACH FL 33140-2219	water	2		0.00 29	1
517904-00	res	6580 ALLISON RD MIAMI BEACH FL 33141-4509	water	0.625		118.00 29	í
517934-00	comm	6363 INDIAN CREEK DR MIAMI BEACH FL 33141-5802	water	1.5		250.00 29	i
518380-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2		0.00 29	í
518380-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2		0.00 29	i
518380-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2		0.00 29	i
518380-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2		3330.00 29	1
518380-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2		3522.00 29	J
518380-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2		3913.00 29	J
518383-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2		320.00 29	J
518383-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	1.5		0.00 29	ļ
518561-00	res	6380 ALLISON RD MIAMI BEACH FL 33141-4506	water	1		248.00 29	ļ
E40304 00		COZO ALLICON DO MAIANAI DEACH. EL COMA AEOC		1		F 00 30	

res 6370 ALLISON RD MIAMI BEACH FL 33141-4506 water 1

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www.docu-trac	19352-01	res	6455 ALLISON RD MIAMI BEACH FL 33141-4507	water	1	144.00 29
	519863-01	hotel	6261 COLLINS AVE MIAMI BEACH FL 33140-2224	water	2	521.00 29
	519893-01	comm	6621 ALLISON RD MIAMI BEACH FL 33141-4510	water	1.5	691.00 29
	520030-02 520226-01	res condo	6300 ALLISON RD MIAMI BEACH FL 33141-4506 6305 INDIAN CREEK DR MIAMI BEACH FL 33141-5802	water water	1 2	242.00 29 1707.00 29
	520220-01	res	6307 ALLISON RD MIAMI BEACH FL 33141-4505	water	0.625	190.00 29
	520501-01	res	6381 ALLISON RD MIAMI BEACH FL 33141-4505	water	1	315.00 29
	520569-00	condo	6365 COLLINS AVE MIAMI BEACH FL 33141-4621	water	2	33.00 29
	520569-00	condo	6365 COLLINS AVE MIAMI BEACH FL 33141-4621	water	2	1954.00 29
	521153-01	res	6530 ALLISON RD MIAMI BEACH FL 33141-4509	water	1.5	963.00 29
	576774-01	city	6330 1/2 ALLISON RD MIAMI BEACH FL 33141-4506	water	2	1862.00 29
	576776-01	city	6400 W 63RD ST MIAMI BEACH FL 33139	water	0.625	3.00 29
	576777-01	city	6300 INDIAN CREEK DR MIAMI BEACH FL 33141	water	4	0.00 29
	576777-01	city	6421 INDIAN CREEK DR MIAMI BEACH FL 33141-5804	water	2	3388.00 29
	576844-00	res	201 AQUA AVE STE 100 MIAMI BEACH FL 33141-5879	water	1.5	0.00 29
	576844-00 576844-00	res res	201 AQUA AVE STE 100 MIAMI BEACH FL 33141-5879 201 AQUA AVE MIAMI BEACH FL 33141-5871	water water	1.5 1.5	402.00 29 63.00 29
	576844-00	res	201 AQUA AVE MIAMI BEACH TE 33141-3871 201 AQUA AVE STE 100 MIAMI BEACH FL 33141-5879	water	1.5	319.00 29
	576844-00	res	201 AQUA AVE STE 100 MIAMI BEACH FL 33141-5879	water	1.5	253.00 29
	576844-00	res	201 AQUA AVE STE 100 MIAMI BEACH FL 33141-5879	water	0.625	579.00 29
	576844-00	res	201 AQUA AVE STE 100 MIAMI BEACH FL 33141-5879	water	1.5	3884.00 29
	576856-01	res	213 AQUA TER MIAMI BEACH FL 33141-5859	water	1	3.00 29
	080416-00	condo	6039 COLLINS AVE MIAMI BEACH FL 33140-2214	water	4	6462.00 29
	080416-00	condo	6039 COLLINS AVE MIAMI BEACH FL 33140-2214	water	4	22190.00 29
	081505-00	hotel	6300 COLLINS AVE MIAMI BEACH FL 33141-4622	water	2	810.00 29
	081505-00	hotel	6300 COLLINS AVE MIAMI BEACH FL 33141-4622	water	2	864.00 29
	081513-00	comm	6348 COLLINS AVE MIAMI BEACH FL 33141-4622	water	0.625	238.00 29
	082107-02	comm	210 W 63RD ST MIAMI BEACH FL 33141-5801	water	2	46.00 29
	082172-01 082180-00	res res	6411 ALLISON RD MIAMI BEACH FL 33141-4507 6415 ALLISON RD MIAMI BEACH FL 33141-4507	water water	1 1.5	283.00 29 43.00 29
	082305-00	res	6585 ALLISON RD MIAMI BEACH FL 33141-4508	water	2	0.00 29
	082420-00	res	6500 ALLISON RD MIAMI BEACH FL 33141-4509	water	1.5	29.00 29
	082438-00	res	6494 ALLISON RD MIAMI BEACH FL 33141-4540	water	1.5	142.00 29
	118786-00	city	6310 INDIAN CREEK DR MIAMI BEACH FL 33139	water	2	3144.00 29
	289991-00	condo	6424 COLLINS AVE MIAMI BEACH FL 33141-4607	water	1	269.00 29
	301317-00	condo	6445 INDIAN CREEK DR MIAMI BEACH FL 33141-5804	water	2	1283.00 29
	315226-02	comm	6084 COLLINS AVE MIAMI BEACH FL 33140-2215	water	2	100.00 29
	319251-00	condo	6444 COLLINS AVE MIAMI BEACH FL 33141-4625	water	2	365.00 29
	339705-00	condo	6061 COLLINS AVE MIAMI BEACH FL 33140-2214	water	3	1805.00 29
	339705-00	condo	6061 COLLINS AVE MIAMI BEACH FL 33140-2214	water	3	1989.00 29
	366716-00	res	6550 ALLISON RD MIAMI BEACH FL 33141-4509	water	1.5	53.00 29
	500767-00 501795-00	res	6525 ALLISON RD MIAMI BEACH FL 33141-4508 6365 ALLISON RD MIAMI BEACH FL 33141-4505	water	1.5 1	39.00 29 79.00 29
	504462-01	res res	6475 ALLISON RD MIAMI BEACH FL 33141-4507	water water	1.5	113.00 29
	505039-00	res	6360 ALLISON RD MIAMI BEACH FL 33141-4506	water	1.5	46.00 29
	505041-00	res	6605 ALLISON RD MIAMI BEACH FL 33141-4510	water	1.5	40.00 29
	505043-00	res	6431 ALLISON RD MIAMI BEACH FL 33141-4507	water	1	2.00 29
	507032-01	res	6341 ALLISON RD MIAMI BEACH FL 33141-4505	water	1	59.00 29
	507101-01	apart	6055 INDIAN CREEK DR MIAMI BEACH FL 33140-2218	water	1.5	50.00 29
	507169-01	apart	6061 INDIAN CREEK DR MIAMI BEACH FL 33140-2218	water	1.5	50.00 29
	507378-00	comm	6313 ALLISON RD MIAMI BEACH FL 33141-4505	water	0.625	6.00 29
	508006-00	res	6325 ALLISON RD MIAMI BEACH FL 33141-4505	water	1	14.00 29
	510222-00	res	6520 ALLISON RD MIAMI BEACH FL 33141-4509	water	1.5	30.00 29
	510404-00	res	6450 ALLISON RD MIAMI BEACH FL 33141-4540	water	1	70.00 29
l	510759-00	res	6355 ALLISON RD MIAMI BEACH FL 33141-4505	water	1	416.00 29
	511073-00	res	6555 ALLISON RD MIAMI BEACH FL 33141-4508	water	1.5	144.00 29
	511207-00 511261-00	res condo	6470 ALLISON RD MIAMI BEACH FL 33141-4540 6345 COLLINS AVE MIAMI BEACH FL 33141-4621	water	2 4	83.00 29 17298.00 29
	511261-00	condo	6301 COLLINS AVE MIAMI BEACH FL 33141-4621	water water	3	4856.00 29
	511320-00	condo	6301 COLLINS AVE MIAMI BEACH FL 33141-4021	water	3	6515.00 29
I	511520 00	551145	1111 0011		-	0313.00 23

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Www.docu-track	320-00	condo	6301 COLLINS AVE MIAMI BEACH FL 33141-4621	water	1.5	0.00 29
	511867-01	res	6320 ALLISON RD MIAMI BEACH FL 33141-4506	water	1	966.00 29
	512095-00	condo	6422 COLLINS AVE MIAMI BEACH FL 33141-4607	water	2	952.00 29
	512095-00	condo	6422 COLLINS AVE MIAMI BEACH FL 33141-4607	water	2	1137.00 29
	512146-01 512146-01	res res	6060 INDIAN CREEK DR MIAMI BEACH FL 33140-2219 6060 INDIAN CREEK DR MIAMI BEACH FL 33140-2219	water water	2 2	0.00 29 22.00 29
	512146-01	res	6060 INDIAN CREEK DR MIAMI BEACH FL 33140-2219	water	1.5	177.00 29
	512232-00	res	6575 ALLISON RD MIAMI BEACH FL 33141-4508	water	1.5	92.00 29
	512451-01	res	6400 ALLISON RD MIAMI BEACH FL 33141-4540	water	1	197.00 29
	513467-00	res	6651 ALLISON RD MIAMI BEACH FL 33141-4510	water	1	77.00 29
	513913-00	comm	250 W 63RD ST MIAMI BEACH FL 33140	water	2	0.00 29
	514077-00 514398-00	res res	6391 ALLISON RD MIAMI BEACH FL 33141-4505 6505 ALLISON RD MIAMI BEACH FL 33141-4508	water water	1 1	79.00 29 52.00 29
	514583-00	res	6444 ALLISON RD MIAMI BEACH FL 33141-4540	water	1	58.00 29
	515378-00	res	6620 ALLISON RD MIAMI BEACH FL 33141-4511	water	1.5	158.00 29
	515712-02	res	6633 ALLISON RD MIAMI BEACH FL 33141-4510	water	1.5	918.00 29
	516129-00	res	6640 ALLISON RD MIAMI BEACH FL 33141-4511	water	2	141.00 29
	516401-00	res	6350 ALLISON RD MIAMI BEACH FL 33141-4506	water	1	87.00 29
	516526-01	res	6570 ALLISON RD MIAMI BEACH FL 33141-4509	water	1.5	1.00 29
	516764-00 516826-01	res res	6420 ALLISON RD MIAMI BEACH FL 33141-4540 6330 ALLISON RD MIAMI BEACH FL 33141-4506	water water	2 0.625	64.00 29 89.00 29
	517650-02	res	6565 ALLISON RD MIAMI BEACH FL 33141-4508	water	1.5	121.00 29
	517689-00	res	6535 ALLISON RD MIAMI BEACH FL 33141-4508	water	1.5	95.00 29
	517770-00	condo	6000 INDIAN CREEK DR MIAMI BEACH FL 33140-2219	water	2	515.00 29
	517770-00	condo	6000 INDIAN CREEK DR MIAMI BEACH FL 33140-2219	water	2	2022.00 29
	517770-00	condo	6000 INDIAN CREEK DR MIAMI BEACH FL 33140-2219	water	1.5	0.00 29
	517899-01	condo	5950 COLLINS AVE MIAMI BEACH FL 33140-2260	water	2	0.00 29
	517899-01	condo	5950 COLLINS AVE MIAMI BEACH FL 33140-2260 5950 COLLINS AVE MIAMI BEACH FL 33140-2260	water	3 3	1810.00 29 1767.00 29
	517899-01 517899-01	condo condo	5950 COLLINS AVE MIAMI BEACH FL 33140-2260	water water	2	1225.00 29
	517904-00	res	6580 ALLISON RD MIAMI BEACH FL 33141-4509	water	1.5	189.00 29
	517930-00	condo	5970 INDIAN CREEK DR MIAMI BEACH FL 33140-2288	water	2	962.00 29
	517930-00	condo	5970 INDIAN CREEK DR MIAMI BEACH FL 33140-2288	water	1	265.00 29
	517930-00	condo	5970 INDIAN CREEK DR MIAMI BEACH FL 33140-2288	water	2	792.00 29
	517934-00	comm	6363 INDIAN CREEK DR MIAMI BEACH FL 33141-5802	water	2	0.00 29
	517934-00 518380-00	comm	6363 INDIAN CREEK DR MIAMI BEACH FL 33141-5802	water	2	2622.00 29
	518380-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259 5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water water	2 2	3527.00 29 0.00 29
	518380-00	comm	5937 COLLINS AVE MIAMI BEACH FL 33140-2259	water	2	3053.00 29
	518561-00	res	6380 ALLISON RD MIAMI BEACH FL 33141-4506	water	1.5	100.00 29
	518742-04	res	6493 ALLISON RD MIAMI BEACH FL 33141-4507	water	1	188.00 29
	519291-00	res	6370 ALLISON RD MIAMI BEACH FL 33141-4506	water	1	79.00 29
	519352-01	res	6455 ALLISON RD MIAMI BEACH FL 33141-4507	water	1	70.00 29
	519893-01	comm	6621 ALLISON RD MIAMI BEACH FL 33141-4510	water	1.5	73.00 29
	519954-00 520030-02	res res	6491 ALLISON RD MIAMI BEACH FL 33141-4507 6300 ALLISON RD MIAMI BEACH FL 33141-4506	water water	1.5 1	64.00 29 30.00 29
	520356-04	res	6650 ALLISON RD MIAMI BEACH FL 33141-4511	water	1.5	22.00 29
	520479-00	res	6307 ALLISON RD MIAMI BEACH FL 33141-4505	water	0.625	124.00 29
	520501-01	res	6381 ALLISON RD MIAMI BEACH FL 33141-4505	water	1	75.00 29
	520569-00	condo	6365 COLLINS AVE MIAMI BEACH FL 33141-4621	water	2	0.00 29
	520569-00	condo	6365 COLLINS AVE MIAMI BEACH FL 33141-4621	water	2	0.00 29
	520569-00	condo	6365 COLLINS AVE MIAMI BEACH FL 33141-4621	water	3	14395.00 29
	520569-00 521153-01	condo res	6365 COLLINS AVE MIAMI BEACH FL 33141-4621 6530 ALLISON RD MIAMI BEACH FL 33141-4509	water water	3 1	0.00 29 47.00 29
	521153-01 576778-01	city	6475 COLLINS AVE MIAMI BEACH FL 33141-4624	water	1	46.00 29
	576794-00	res	6205 N LAGUNA PATH N MIAMI BEACH FL 33141-5861		1	0.00 29
	576795-00	res	6203 N LAGUNA PATH N MIAMI BEACH FL 33141-5861		1	12.00 29
	576796-02	res	6201 N LAGUNA PATH N MIAMI BEACH FL 33141-5861	water	1	30.00 29
	576797-02	res	215 ARI WAY MIAMI BEACH FL 33141-5869	water	1	26.00 29
	576798-01	res	213 ARI WAY MIAMI BEACH FL 33141-5869	water	1	105.00 29

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6799-04	res	211 ARI WAY MIAMI BEACH FL 33141-5869	vater	1	18.00 29
576800-00	res			1	71.00 29
576801-02	res	220 ARI WAY MIAMI BEACH FL 33141-5860	vater	1	50.00 29
576802-01	res	210 ARI WAY MIAMI BEACH FL 33141-5860	vater	1	53.00 29
576803-01	res	240 ARI WAY MIAMI BEACH FL 33141-5860	vater	1	66.00 29
576804-01	res	6113 W LAGUNA DR WEST MIAMI BEACH FL 33141-5865 w	vater	1	27.00 29
576805-01	res	6111 W LAGUNA DR WEST MIAMI BEACH FL 33141-5865 w	vater :	1	263.00 29
576806-01	res	6109 W LAGUNA DR WEST MIAMI BEACH FL 33141-5865 w	vater :	1	122.00 29
576807-01	res	215 WATER WAY MIAMI BEACH FL 33141-5867	vater :	1	7.00 29
576808-01	res	213 WATER WAY MIAMI BEACH FL 33141-5867	vater	1	66.00 29
576809-03	res	211 WATER WAY MIAMI BEACH FL 33141-5867 w	vater	1	12.00 29
576810-00	res	6120 AQUA AVE MIAMI BEACH FL 33141-5856 w	vater	1	3.00 29
576811-01	res	240 WATER WAY MIAMI BEACH FL 33141-5856 w	vater	1	9.00 29
576812-02	res	230 WATER WAY MIAMI BEACH FL 33141-5866 w	vater	1	47.00 29
576813-00	res	220 WATER WAY MIAMI BEACH FL 33141-5866 w	vater :	1	139.00 29
576814-02	res	210 WATER WAY MIAMI BEACH FL 33141-5866 w	vater :	1	68.00 29
576815-01	res	6110 AQUA AVE MIAMI BEACH FL 33141-5856 w	vater	1	52.00 29
576816-02	res	250 WATER WAY MIAMI BEACH FL 33141-5866 w	vater	1	53.00 29
576823-02	res	215 ZOE WAY MIAMI BEACH FL 33141-5870 w	vater	1	40.00 29
576824-02	res	213 ZOE WAY MIAMI BEACH FL 33141-5870	vater	1	34.00 29
576825-00	res	211 ZOE WAY MIAMI BEACH FL 33141-5870 w	vater	1	129.00 29
576826-01	res	6100 AQUA AVE MIAMI BEACH FL 33141-5856	vater	1	214.00 29
576841-00	condo	201 AQUA AVE MIAMI BEACH FL 33141-5871 w	vater :	2	1066.00 29
576841-00	condo	201 AQUA AVE MIAMI BEACH FL 33141-5871 w	vater :	2	48.00 29
576842-00	condo	6103 AQUA AVE MIAMI BEACH FL 33141-5857 w	vater :	2	1386.00 29
576842-00	condo	6103 AQUA AVE MIAMI BEACH FL 33141-5857 w	vater :	2	1565.00 29
576843-00	condo	6101 AQUA AVE MIAMI BEACH FL 33141-5857 w	vater :	2	1256.00 29
576843-00	condo	6101 AQUA AVE MIAMI BEACH FL 33141-5857 w	vater :	2	1.00 29
576844-00	res	201 AQUA AVE MIAMI BEACH FL 33141-5871 w	vater	1.5	326.00 29
576844-00	res	201 AQUA AVE STE 100 MIAMI BEACH FL 33141-5879 w	vater (	0.625	5.00 29
576844-00	res	201 AQUA AVE STE 100 MIAMI BEACH FL 33141-5879 w	vater :	2	68.00 29
576848-00	res	220 ZOE WAY MIAMI BEACH FL 33141-5868	vater :	1	117.00 29
576849-00	res	240 ZOE WAY MIAMI BEACH FL 33141-5868	vater :	1	14.00 29
576850-00	res	230 ZOE WAY MIAMI BEACH FL 33141-5868	vater :	1	69.00 29
576851-01	res	6003 S LAGUNA PATH S MIAMI BEACH FL 33141	vater :	1	0.00 29
576852-00	res	6001 S LAGUNA PATH S MIAMI BEACH FL 33141-5864 w	vater :	1	241.00 29
576853-00	res	219 AQUA TER MIAMI BEACH FL 33141-5859	vater :	1	60.00 29
576854-02	res	217 AQUA TER MIAMI BEACH FL 33141-5859	vater :	1	82.00 29
576855-00	res	215 AQUA TER MIAMI BEACH FL 33141-5859	vater :	1	87.00 29
576857-02	res	211 AQUA TER MIAMI BEACH FL 33141-5859	vater :	1	4.00 29
576858-00	res	6000 AQUA PATH MIAMI BEACH FL 33141-5858	vater :	1	354.00 29
576859-01	res	6010 AQUA PATH MIAMI BEACH FL 33141-5858	vater :	1	62.00 29
576860-02	res			1	42.00 29
576861-01	res			1	135.00 29
576862-02	res			1	13.00 29
576865-00	res	6103 W LAGUNA DR WEST MIAMI BEACH FL 33141-5865 w		1	120.00 29

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31B	010710-01	res	321 MERIDIAN AVE MIAMI BEACH FL 33139-8722	water	0.625	NA	230	
31B	013276-00	city	600 1/2 JEFFERSON AVE MIAMI BEACH FL 33139-1824	water	1.5	22		231
31B	013276-00	city	600 1/2 JEFFERSON AVE MIAMI BEACH FL 33139-1824	water	1.5	2		
31B 31B	019752-00 118786-00	condo city	401 OCEAN DR MIAMI BEACH FL 33139-6644 306 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-6907	water water	2	NA	2,708 ) 0	
31B	118794-00	city	500 1/2 WESTINGTON AVE MIAMI BEACH TE 33139-0907	water	2		) 0	
31B	118794-00	city	905 4TH ST MIAMI BEACH FL 33139-6825	water	2	130		1,847
31B	312801-00	city	358 1/2 EUCLID AVE MIAMI BEACH FL 33139-8754	water	2	2		
31B	505913-00	comm	300 ALTON RD STE 112 MIAMI BEACH FL 33139-8914	water	2	NA	11,597	
31B	505913-00	comm	300 ALTON RD STE 112 MIAMI BEACH FL 33139-8914	water	4	NA	0	
31B	505913-00	comm	300 ALTON RD STE 112 MIAMI BEACH FL 33139-8914	water	4		0	0
31B	505913-00	comm	300 ALTON RD STE 112 MIAMI BEACH FL 33139-8914	water	6	NA	2,056	1,005
31B	508232-00	condo	221 JEFFERSON AVE MIAMI BEACH FL 33139-7006	water	1.5	NA	3	
31B	508826-00	comm	234 JEFFERSON AVE MIAMI BEACH FL 33139-7007	water	1	NA	17	
31B	509655-00	condo	101 ALTON RD MIAMI BEACH FL 33139-6700	water	2	NA	3,147	
31B	510362-00	comm	427 COLLINS AVE MIAMI BEACH FL 33139-6609	water	0.625	NA 24	0	
31B 31B	510784-01 510784-02	comm	619 MERIDIAN AVE MIAMI BEACH FL 33139-6429 619 MERIDIAN AVE MIAMI BEACH FL 33139-6429	water	1	NA	5 0 391	
31B	511784-02	comm	524 JEFFERSON AVE MIAMI BEACH FL 33139-6303	water water	1.5	15		147
31B	512540-01	apart	643 JEFFERSON AVE MIAMI BEACH FL 33139-8519	water	1.5	13.		
31B	513148-01	condo	458 OCEAN DR MIAMI BEACH FL 33139-6614	water	1.5	NA	0	
31B	513392-00	comm	426 JEFFERSON AVE MIAMI BEACH FL 33139-6503	water	2	NA	203	355
31B	513395-00	condo	300 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1	NA	0	
31B	515011-00	apart	226 JEFFERSON AVE MIAMI BEACH FL 33139-7007	water	1	NA	233	209
31B	515359-00	comm	404 WASHINGTON AVE STE 620 MIAMI BEACH FL 33139-660	water	1	NA	47	44
31B	515703-00	condo	90 ALTON RD MIAMI BEACH FL 33139-6707	water	2	NA	7,458	8,594
31B	515703-00	condo	90 ALTON RD MIAMI BEACH FL 33139-6707	water	2	NA	3,690	
31B	515703-00	condo	90 ALTON RD MIAMI BEACH FL 33139-6707	water	2	NA	1,769	
31B	516168-00	condo	328 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1	NA	248	
31B	516320-00	condo	361 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	0.625	NA	51	
31B 31B	516370-00 517480-01	condo condo	344 EUCLID AVE MIAMI BEACH FL 33139-8706 234 MERIDIAN AVE MIAMI BEACH FL 33139-7013	water water	1	NA NA	262 0	
31B	518338-00	condo	911 3RD ST MIAMI BEACH FL 33139-7613	water	1	NA	86	
31B	519262-02	comm	400 EUCLID AVE MIAMI BEACH FL 33139-6522	water	1	NA	0	
31B	519643-00	condo	828 3RD ST MIAMI BEACH FL 33139-6820	water	1.5	NA	0	
31B	519876-00	condo	450 ALTON RD MIAMI BEACH FL 33139-6767	water	2	NA	2,407	2,034
31B	519876-00	condo	450 ALTON RD MIAMI BEACH FL 33139-6767	water	2	NA	2,466	2,083
31B	520071-00	condo	400 ALTON RD STE 105 MIAMI BEACH FL 33139-6720	water	3	NA	8,292	6,756
31B	520111-00	res	110 WASHINGTON AVE MIAMI BEACH FL 33139-7215	water	2	NA	200	163
31B	520148-00	city	820 4TH ST MIAMI BEACH FL 33139-6824	water	2	52		407
31B	520148-00	city	821 2ND ST MIAMI BEACH FL 33139-7040	water	2	60		609
31B	520148-00	city	655 1/2 MERIDIAN AVE MIAMI BEACH FL 33139-6429	water	2	11		
31B 31B	520148-00 520148-00	city	160 1/2 ALTON RD MIAMI BEACH FL 33139-6709	water	1.5 2	24: 53:		335
31B	520148-00	city condo	301 OCEAN DR MIAMI BEACH FL 33139-6997 245 MICHIGAN AVE MIAMI BEACH FL 33139-7035	water water	1	NA NA	) 820 258	
31B	520382-00	condo	900 4TH ST MIAMI BEACH FL 33139-6826	water	0.625	NA	264	218
31B	520447-01	comm	426 EUCLID AVE MIAMI BEACH FL 33139-6522	water	0.625	NA	0	
31B	520447-02	comm	426 EUCLID AVE MIAMI BEACH FL 33139-6522	water	0.625	NA	0	
31B	520667-00	hotel	425 OCEAN DR MIAMI BEACH FL 33139-6613	water	2	NA	21	28
31B	520668-00	hotel	455 OCEAN DR MIAMI BEACH FL 33139-6613	water	1	NA	1,471	1,176
31B	520670-00	comm	422 COLLINS AVE MIAMI BEACH FL 33139-6610	water	0.625	NA	407	
31B	520988-03	condo	350 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	1	NA	127	
31B	521215-01	condo	321 OCEAN DR MIAMI BEACH FL 33139-6904	water	2	NA	397	
31B	521308-00	condo	340 JEFFERSON AVE MIAMI BEACH FL 33139-6803	water	1	NA	58	
31B 31B	576774-01 576774-01	city city	500 1/2 JEFFERSON AVE MIAMI BEACH FL 33139-6303 491 1/2 EUCLID CT MIAMI BEACH FL 33139	water water	1 1.5		) 1,785 ) 0	
31B	576774-01	city	300 1/2 ALTON RD MIAMI BEACH FL 33139-8900	water	1.5	32		
31B	576775-01	city	411 1/2 OCEAN DR MIAMI BEACH FL 33139-6613	water	1.5	54:		
31B	576775-01	city	300 1/2 WASHINGTON AVE MIAMI BEACH FL 33139-6907	water	2	114		
31B	576776-01	city	500 1/2 JEFFERSON AVE MIAMI BEACH FL 33139-6303	water	1.5		0	
31B	576776-01	city	490 1/2 OCEAN CT MIAMI BEACH FL 33139	water	1.5	(	0	0
31B	576777-01	city	301 1/2 MAC ARTHUR CSWY WB MIAMI BEACH FL 33139	water	2	1	3 0	0
31B	576777-01	city	300 1/2 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	2	83		
31B	576777-01	city	201 1/2 MAC ARTHUR CSWY WB MIAMI BEACH FL 33139	water	2		238	
31B	576777-01	city	390 1/2 ALTON RD MIAMI BEACH FL 33139-8900	water	2	15		
31B	576778-01	city	301 1/2 MAC ARTHUR CSWY WB MIAMI BEACH FL 33139	water	2	13:		
31B	576778-01	city	201 1/2 MAC ARTHUR CSWY WB MIAMI BEACH FL 33139	water	2	79:		
31B 31B	576846-02 576955-00	res res	401 JEFFERSON AVE MIAMI BEACH FL 33139-6502 90 ALTON RD MIAMI BEACH FL 33139-6707	water water	1 2	NA NA	0	
31B	019703-00	condo	465 OCEAN DR MIAMI BEACH FL 33139-6645	water	3	NA NA	3,553	
31B	019752-00	condo	401 OCEAN DR MIAMI BEACH FL 33139-6644	water	3	NA	2,627	
31B	508826-00	comm	234 JEFFERSON AVE MIAMI BEACH FL 33139-7007	water	2	NA	2,270	
31B	512734-00	condo	335 OCEAN DR MIAMI BEACH FL 33139-6976	water	2	NA	2,363	



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ck.co.	513300-01	apart	626 JEFFERSON AVE MIAMI BEACH FL 33139-8518	water	1		608	752	675
31B	520099-01	apart	810 7TH ST MIAMI BEACH FL 33139-8501	water	1.5		0	0	0
31B	521215-01	condo	321 OCEAN DR MIAMI BEACH FL 33139-6904	water	4	NA		1,491	773
31B	521215-01	condo	321 OCEAN DR MIAMI BEACH FL 33139-6904	water	3	NA		869	447
31B	000794-00	condo	326 OCEAN DR MIAMI BEACH FL 33139-6905		1.5	NA		68	76
				water					
31B	001016-00	apart	412 OCEAN DR MIAMI BEACH FL 33139-6614	water	1.5	NA		560	372
31B	001024-02	comm	400 OCEAN DR MIAMI BEACH FL 33139-6614	water	1	NA		0	0
31B	001024-02	comm	400 OCEAN DR MIAMI BEACH FL 33139-6614	water	2		950	1,002	980
31B	001057-00	condo	421 COLLINS AVE MIAMI BEACH FL 33139-6609	water	1	NA		374	333
31B	001073-00	condo	441 COLLINS AVE MIAMI BEACH FL 33139-6609	water	1	NA		1,091	1,001
31B	001123-00	condo	428 COLLINS AVE MIAMI BEACH FL 33139-6610	water	1	NA		490	476
31B	001396-00	condo	323 WASHINGTON AVE MIAMI BEACH FL 33139-6906	water	0.625		223	230	225
31B	001438-00	condo	363 WASHINGTON AVE MIAMI BEACH FL 33139-6906		2	NA	223	1,212	1,131
				water					
31B	009605-00	condo	334 WASHINGTON AVE MIAMI BEACH FL 33139-6934	water	0.625	NA		232	173
31B	010496-01	apart	727 2ND ST MIAMI BEACH FL 33139-7042	water	0.625	NA		51	44
31B	010512-00	condo	221 MERIDIAN AVE MIAMI BEACH FL 33139-7012	water	3	NA		1,692	1,331
31B	010561-00	condo	358 EUCLID AVE MIAMI BEACH FL 33139-8706	water	0.625	NA		324	363
31B	010801-00	condo	418 EUCLID AVE MIAMI BEACH FL 33139-6522	water	1.5	NA		643	467
31B	010819-00	condo	410 EUCLID AVE MIAMI BEACH FL 33139-6522	water	1	NA		420	347
31B	010868-00	apart	411 MERIDIAN AVE MIAMI BEACH FL 33139-6519	water	1	NA		339	263
31B	011098-00	condo	525 MERIDIAN AVE MIAMI BEACH FL 33139-6427	water	1.5		1245	1,066	1,054
31B	011036 00	condo			1.5		304	353	286
			533 MERIDIAN AVE MIAMI BEACH FL 33139-6427	water					
31B	011114-00	condo	543 MERIDIAN AVE MIAMI BEACH FL 33139-6427	water	1		205	275	260
31B	011122-00	condo	549 MERIDIAN AVE MIAMI BEACH FL 33139-6427	water	1		544	804	536
31B	011346-00	comm	655 MERIDIAN AVE MIAMI BEACH FL 33139-6429	water	1		559	635	616
31B	013243-00	condo	644 MERIDIAN AVE MIAMI BEACH FL 33139-6430	water	1.5		346	393	380
31B	013250-00	condo	636 MERIDIAN AVE MIAMI BEACH FL 33139-6430	water	1		816	1,346	1,213
31B	013268-00	condo	626 MERIDIAN AVE MIAMI BEACH FL 33139-6430	water	1.5		217	259	229
31B	013276-00	city	833 6TH ST MIAMI BEACH FL 33139-6319	water	2		276	732	628
31B	013300-00	condo	631 JEFFERSON AVE MIAMI BEACH FL 33139-8525	water	1.5		545	687	1,391
	013300-00								
31B		condo	528 MERIDIAN AVE MIAMI BEACH FL 33139-6428	water	2		2153	2,528	2,503
31B	013599-00	condo	360 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	2	NA		903	772
31B	013656-00	apart	310 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	1	NA		312	450
31B	013680-00	condo	301 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	2	NA		1,006	583
31B	013748-00	comm	345 JEFFERSON AVE MIAMI BEACH FL 33139-6873	water	1	NA		315	235
31B	013789-00	condo	820 3RD ST MIAMI BEACH FL 33139-6820	water	1	NA		974	935
31B	013797-00	condo	250 MERIDIAN AVE MIAMI BEACH FL 33139-7013	water	1	NA		177	200
31B	013839-00	condo	224 MERIDIAN AVE MIAMI BEACH FL 33139-7013	water	1	NA		390	374
31B	013847-00	condo	220 MERIDIAN AVE MIAMI BEACH FL 33139-7013	water	1	NA		997	765
31B	013987-00	condo			1	NA		211	149
			208 MERIDIAN AVE MIAMI BEACH FL 33139-7013	water					
31B	014092-00	condo	201 JEFFERSON AVE MIAMI BEACH FL 33139-7006	water	2	NA		1,085	966
31B	014423-00	condo	252 JEFFERSON AVE MIAMI BEACH FL 33139-7007	water	1	NA		324	345
31B	014498-01	res	935 2ND ST MIAMI BEACH FL 33139-7038	water	0.625	NA		0	0
31B	014514-00	res	211 MICHIGAN AVE MIAMI BEACH FL 33139-7015	water	0.625	NA		90	242
31B	014837-00	condo	900 6TH ST MIAMI BEACH FL 33139-6322	water	1.5		790	953	852
31B	018366-00	comm	200 ALTON RD MIAMI BEACH FL 33139-6742	water	3		0	0	0
31B	018366-00	comm	200 ALTON RD MIAMI BEACH FL 33139-6742	water	3	NA		252	218
31B	018382-00	comm	150 ALTON RD MIAMI BEACH FL 33139-6741	water	3	NA		2,792	2,260
					3				
31B	018382-00	comm	150 ALTON RD MIAMI BEACH FL 33139-6/41	water		NA		2,507	2,067
31B	019646-00	condo	325 OCEAN DR MIAMI BEACH FL 33139-6904	water	2	NA		1,978	2,012
31B	019695-00	condo	301 OCEAN DR MIAMI BEACH FL 33139-6997	water	2	NA		403	391
31B	019703-00	condo	465 OCEAN DR MIAMI BEACH FL 33139-6645	water	3	NA		4,056	3,946
31B	019752-00	condo	401 OCEAN DR MIAMI BEACH FL 33139-6644	water	3	NA		2,559	2,189
31B	118919-01	hotel	334 OCEAN DR MIAMI BEACH FL 33139-6905	water	1.5	NA		186	153
31B	119800-00	comm	428 JEFFERSON AVE MIAMI BEACH FL 33139-6503	water	1	NA		50	42
31B	500404-00	apart	349 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	1	NA		84	68
31B	500404-00	apart	349 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	1	NA		243	197
31B	501582-00	apart	333 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	1	NA		96	60
		•	333 JEFFERSON AVE MIAMI BEACH FL 33139-6802						
31B	501582-00	apart		water	1	NA		471	230
31B	501930-00	apart	837 4TH ST MIAMI BEACH FL 33139-6815	water	1	NA		290	343
31B	503045-00	condo	345 OCEAN DR MIAMI BEACH FL 33139-8756	water	3	NA		3,855	4,002
31B	503045-00	condo	345 OCEAN DR MIAMI BEACH FL 33139-8756	water	3	NA		3,061	3,333
31B	503083-00	apart	641 MERIDIAN AVE MIAMI BEACH FL 33139-6429	water	0.625		91	104	96
31B	503083-00	apart	641 MERIDIAN AVE MIAMI BEACH FL 33139-6429	water	0.625		574	799	546
31B	504098-01	comm	735 2ND ST MIAMI BEACH FL 33139-7042	water	1	NA		211	222
31B	504826-00	hotel	411 WASHINGTON AVE MIAMI BEACH FL 33139-6617	water	2	NA		2,270	1,554
31B	505555-00	apart	625 MERIDIAN AVE MIAMI BEACH FL 33139-6429	water	1		280	315	290
		•					289		
31B	505816-00	comm	845 5TH ST MIAMI BEACH FL 33139-6511	water	0.625		349	371	253
31B	505913-00	comm	300 ALTON RD STE 112 MIAMI BEACH FL 33139-8914	water	2	NA		4,222	2,795
31B	505913-00	comm	300 ALTON RD STE 112 MIAMI BEACH FL 33139-8914	water	2	NA		1,528	975
31B	505959-00	comm	421 WASHINGTON AVE MIAMI BEACH FL 33139-6601	water	0.625	NA		291	291
31B	506370-00	res	651 JEFFERSON AVE MIAMI BEACH FL 33139-8519	water	0.625		76	72	70
31B	507065-00	apart	327 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	1	NA		134	102
31B	507134-00	apart	321 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	1	NA		1,773	1,722
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ck.co	507720-00	hotel	444 OCEAN DR MIAMI BEACH FL 33139-6614	water	1.5	NA		2,074	1,775
31B	507721-00	hotel	436 OCEAN DR MIAMI BEACH FL 33139-6614	water	1.5	NA		587	401
31B	508232-00	condo	221 JEFFERSON AVE MIAMI BEACH FL 33139-7006	water	1	NA		0	0
31B	508396-00	apart	350 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1.5	NA		332	717
31B	508465-00	comm	812 6TH ST MIAMI BEACH FL 33139-6320	water	0.625		285	435	228
31B	508654-00	duplex	235 JEFFERSON AVE MIAMI BEACH FL 33139-7006	water	0.625	NA		96	96
31B	508720-00	apart	316 JEFFERSON AVE MIAMI BEACH FL 33139-6803	water	1	NA		229	181
31B	508773-00	apart	610 JEFFERSON AVE MIAMI BEACH FL 33139-8518	water	1		174	180	160
31B	508918-00	comm	328 JEFFERSON AVE MIAMI BEACH FL 33139-6803	water	1	NA		281	193
31B	508930-00	comm	819 5TH ST MIAMI BEACH FL 33139-6511	water	1		0	0	0
31B	508930-00	comm	819 5TH ST MIAMI BEACH FL 33139-6511	water	1.5		391	456	472
31B	509088-01	condo	739 2ND ST MIAMI BEACH FL 33139-7042	water	1	NA		495	350
31B	509654-00	comm	723 2ND ST MIAMI BEACH FL 33139-7042	water	0.625	NA		185	190
31B	509655-00	condo	101 ALTON RD MIAMI BEACH FL 33139-6700	water	1.5	NA		4,220	3,335
31B	509655-00	condo	101 ALTON RD MIAMI BEACH FL 33139-6700	water	2	NA		2,775	1,971
31B	509655-00	condo	101 ALTON RD MIAMI BEACH FL 33139-6700	water	2	NA		3,128	2,213
31B	509937-00	condo	344 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	1.5	NA		478	419
31B	510128-01	res	735 4TH ST MIAMI BEACH FL 33139-8704	water	1	NA		0	0
31B	510128-01	res	735 4TH ST MIAMI BEACH FL 33139-8704	water	1.5	NA		48	37
31B	510241-00	condo	345 MERIDIAN AVE MIAMI BEACH FL 33139-8722	water	2	NA		385	282
31B	510241-00	condo	335 MERIDIAN AVE MIAMI BEACH FL 33139-8722	water	1	NA		83	56
31B	510242 00	condo	325 MERIDIAN AVE MIAMI BEACH FL 33139-8722	water	2	NA		290	224
31B	510243-00	comm	515 JEFFERSON AVE MIAMI BEACH FL 33139-6722		1.5	INA	148	44	12
31B		condo		water	1.5	NA	140	137	119
	510360-00		300 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water		NA			
31B	510589-00	comm	820 6TH ST MIAMI BEACH FL 33139-6320	water	1		6	5	5
31B	510678-01	comm	427 JEFFERSON AVE MIAMI BEACH FL 33139-6502	water	1.5	NA		77	56
31B	510684-00	apart	650 MERIDIAN AVE MIAMI BEACH FL 33139-6430	water	1.5		498	598	477
31B	510784-02	comm	619 MERIDIAN AVE MIAMI BEACH FL 33139-6429	water	1.5	NA		0	147
31B	510900-00	comm	840 6TH ST MIAMI BEACH FL 33139-6320	water	1		45	0	0
31B	510971-00	condo	208 JEFFERSON AVE MIAMI BEACH FL 33139-7007	water	2	NA		842	879
31B	511044-00	res	927 2ND ST MIAMI BEACH FL 33139-7038	water	0.625	NA		27	50
31B	511335-00	comm	524 JEFFERSON AVE MIAMI BEACH FL 33139-6303	water	1.5		146	149	139
31B	511934-01	res	803 2ND ST MIAMI BEACH FL 33139-7040	water	0.625	NA		275	126
31B	511994-00	comm	446 COLLINS AVE MIAMI BEACH FL 33139-6610	water	0.625	NA		34	26
31B	511994-00	comm	446 COLLINS AVE MIAMI BEACH FL 33139-6610	water	1	NA		199	176
31B	512000-00	apart	901 6TH ST MIAMI BEACH FL 33139-6321	water	1.5		304	507	443
31B	512193-00	condo	730 3RD ST MIAMI BEACH FL 33139-6854	water	2	NA		0	0
31B	512195-00	comm	355 MERIDIAN AVE MIAMI BEACH FL 33139-8722	water	1.5	NA		471	387
31B	512309-00	condo	359 MERIDIAN AVE MIAMI BEACH FL 33139-8722	water	1.5	NA		341	310
31B	512349-00	comm	431 WASHINGTON AVE MIAMI BEACH FL 33139-6617	water	1.5	NA		174	124
31B	512540-01	apart	643 JEFFERSON AVE MIAMI BEACH FL 33139-8519	water	1		237	380	98
31B	512814-00	apart	542 JEFFERSON AVE MIAMI BEACH FL 33139-6303	water	2		1630	1,811	1,763
31B	513148-01	condo	458 OCEAN DR MIAMI BEACH FL 33139-6614	water	2	NA		1,511	1,406
31B	513296-01	apart	634 JEFFERSON AVE MIAMI BEACH FL 33139-8518	water	1		947	1,472	1,321
31B	513297-01	apart	650 JEFFERSON AVE MIAMI BEACH FL 33139-8518	water	1		390	463	371
31B	513299-01	apart	642 JEFFERSON AVE MIAMI BEACH FL 33139-8518	water	1		484	566	466
31B	513313-01	apart	900 7TH ST MIAMI BEACH FL 33139-6044	water	1		927	1,158	1,062
31B	513366-02	apart	355 WASHINGTON AVE MIAMI BEACH FL 33139-6906	water	1	NA		299	442
31B	513385-00	apart	633 MERIDIAN AVE MIAMI BEACH FL 33139-6429	water	1	1471	821	898	878
31B	513392-00	comm	426 JEFFERSON AVE MIAMI BEACH FL 33139-6503	water	2	NA	021	374	190
31B	513395-00	condo	300 EUCLID AVE MIAMI BEACH FL 33139-8706		3	NA		500	952
31B	514032-00			water	1			141	104
		apart	336 MERIDIAN AVE MIAMI BEACH FL 33139-8721 350 OCEAN DR MIAMI BEACH FL 33139-6905	water		NA			
31B	514114-00	hotel		water	2	NA		1,627	1,717
31B	515011-00	apart	226 JEFFERSON AVE MIAMI BEACH FL 33139-7007	water	1	NA		283	248
31B	515072-00	apart	410 MERIDIAN AVE MIAMI BEACH FL 33139-6520	water	1	NA		79	73
31B	515359-00	comm	404 WASHINGTON AVE STE 620 MIAMI BEACH FL 33139-660		2	NA		1,244	1,152
31B	515359-00	comm	404 WASHINGTON AVE STE 620 MIAMI BEACH FL 33139-660		2	NA		1,165	1,086
31B	515412-00	apart	242 MERIDIAN AVE MIAMI BEACH FL 33139-7013	water	0.625	NA		145	201
31B	515513-02	apart	335 WASHINGTON AVE MIAMI BEACH FL 33139-6906	water	0.625	NA		0	1
31B	515602-00	condo	334 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1	NA		660	566
31B	515703-00	condo	90 ALTON RD MIAMI BEACH FL 33139-6707	water	2	NA		6,753	6,084
31B	515703-00	condo	90 ALTON RD MIAMI BEACH FL 33139-6707	water	2	NA		6,610	5,953
31B	515703-00	condo	90 ALTON RD MIAMI BEACH FL 33139-6707	water	2	NA		7,278	6,339
31B	515827-00	condo	320 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1.5	NA		338	400
31B	515872-02	comm	347 WASHINGTON AVE MIAMI BEACH FL 33139-6906	water	1.5	NA		689	754
31B	516125-00	comm	802 6TH ST MIAMI BEACH FL 33139-6320	water	2		3223	3,936	3,652
31B	516168-00	condo	328 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1	NA		494	371
31B	516303-01	res	912 4TH ST MIAMI BEACH FL 33139-6826	water	0.625	NA		48	41
31B	516320-00	condo	361 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	2	NA		160	118
31B	516370-00	condo	344 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1	NA		82	63
31B	516370-00	condo	344 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1	NA		48	37
31B	516370-00	condo	344 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1	NA		29	25
31B	516370-00	condo	344 EUCLID AVE MIAMI BEACH FL 33139-8700	water	1	NA		3	40
31B	516370-00	condo	344 EUCLID AVE MIAMI BEACH FL 33139-8706	water	1	NA		9	40
210	2103/0-00	condo	2-4 FACEIN UAF IMIDIAN DEWON 1 F 237232-01/00	*VULCI	-	INA		3	42

COL	516566-00	condo	221 MICHIGAN AVE MIAMI BEACH FL 33139-7015	water	2	NA		1,050	1,014
31B	516566-00	condo	221 MICHIGAN AVE MIAMI BEACH FL 33139-7015	water	2	NA		1,030	1,014
31B	516566-00	condo	221 MICHIGAN AVE MIAMI BEACH FL 33139-7015	water	1.5	NA		0	1
31B	516693-01	hotel	530 MERIDIAN AVE MIAMI BEACH FL 33139-6428	water	2		1560	2,313	2,413
31B	516774-00	condo	701 2ND ST MIAMI BEACH FL 33139-7042	water	1.5	NA		282	259
31B	516939-00	res	221 JEFFERSON AVE MIAMI BEACH FL 33139-7006	water	2	NA		571	352
31B	517480-01	condo	234 MERIDIAN AVE MIAMI BEACH FL 33139-7013	water	1.5	NA		244	196
31B	517480-01	condo	234 MERIDIAN AVE MIAMI BEACH FL 33139-7013	water	1.5	NA		501	418
31B	517889-00	res	937 2ND ST MIAMI BEACH FL 33139-7038	water	0.625	NA		58	65
31B	518200-00	res	919 4TH ST MIAMI BEACH FL 33139-6825	water	0.625	NA		1	0
31B	518200-00	res	919 4TH ST MIAMI BEACH FL 33139-6825	water	0.625	NA		19	53
31B	518217-00	condo	305 JEFFERSON AVE MIAMI BEACH FL 33139-6802	water	1	NA		178	151
31B	518338-00	condo	911 3RD ST MIAMI BEACH FL 33139-6821	water	2	NA		128	121
31B	518370-01	apart	819 2ND ST MIAMI BEACH FL 33139-7040	water	0.625	NA		0	3
31B	518586-01	res	326 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	1	NA		82	48
31B	519208-00	res	557 MERIDIAN AVE MIAMI BEACH FL 33139-6427	water	0.625		62	79	81
31B	519262-02	comm	400 EUCLID AVE MIAMI BEACH FL 33139-6522	water	1.5	NA		77	42
31B	519290-01	condo	324 WASHINGTON AVE MIAMI BEACH FL 33139-6907	water	0.625	NA		157	152
31B	519303-00	comm	836 7TH ST MIAMI BEACH FL 33139-8501	water	1.5		259	310	379
31B	519449-00	res	316 WASHINGTON AVE MIAMI BEACH FL 33139-6907	water	1	NA		53	106
31B	519495-00	comm	437 WASHINGTON AVE MIAMI BEACH FL 33139-6617	water	1	NA		779	779
31B	519495-00	comm	437 WASHINGTON AVE MIAMI BEACH FL 33139-6617	water	1	NA		912	719
31B	519643-00	condo	828 3RD ST MIAMI BEACH FL 33139-6820	water	2	NA		546	428
31B	519684-00	condo	318 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	0.625	NA		187	125
31B	519812-03	res	828 4TH ST MIAMI BEACH FL 33139-6824	water	0.625	NA		71	39
31B	519814-00	apart	320 OCEAN DR MIAMI BEACH FL 33139-6905	water	1	NA		149	358
31B 31B	519876-00	condo condo	450 ALTON RD MIAMI BEACH FL 33139-6767	water	2 2	NA		2,445	2,070
31B	519876-00 519876-00	condo	450 ALTON RD MIAMI BEACH FL 33139-6767 450 ALTON RD MIAMI BEACH FL 33139-6767	water	2	NA NA		2,687 1,909	2,263
31B	519876-00	condo	450 ALTON RD MIAMI BEACH FL 33139-6767	water water	2	NA		2,233	1,620 1,905
31B	519876-00	condo	450 ALTON RD MIAMI BEACH FL 33139-6767	water	2	NA		7,267	5,555
31B	519876-00	condo	450 ALTON RD MIAMI BEACH FL 33139-6767	water	2	NA		7,183	5,504
31B	519886-01	apart	421 MERIDIAN AVE MIAMI BEACH FL 33139-6519	water	1	NA		109	90
31B	519889-01	comm	425 MERIDIAN AVE MIAMI BEACH FL 33139-6519	water	2	NA		493	502
31B	519998-00	apart	350 WASHINGTON AVE MIAMI BEACH FL 33139-6907	water	1.5	NA		78	127
31B	520047-00	condo	310 JEFFERSON AVE MIAMI BEACH FL 33139-6803	water	2	NA		264	195
31B	520047-00	condo	310 JEFFERSON AVE MIAMI BEACH FL 33139-6803	water	1	NA		0	0
31B	520071-00	condo	400 ALTON RD STE 105 MIAMI BEACH FL 33139-6720	water	3	NA		9,363	7,890
31B	520071-00	condo	400 ALTON RD STE 105 MIAMI BEACH FL 33139-6720	water	3	NA		8,947	7,721
31B	520111-00	res	110 WASHINGTON AVE MIAMI BEACH FL 33139-7215	water	3	NA		2,801	2,505
31B	520111-00	res	110 WASHINGTON AVE MIAMI BEACH FL 33139-7215	water	3	NA		2,236	1,998
31B	520111-00	res	110 WASHINGTON AVE MIAMI BEACH FL 33139-7215	water	3	NA		2,601	2,321
31B	520111-00	res	110 WASHINGTON AVE MIAMI BEACH FL 33139-7215	water	3	NA		2,783	2,487
31B	520253-00	condo	245 MICHIGAN AVE MIAMI BEACH FL 33139-7035	water	2	NA		928	364
31B	520382-00	condo	900 4TH ST MIAMI BEACH FL 33139-6826	water	2	NA		95	152
31B	520666-00	comm	311 WASHINGTON AVE MIAMI BEACH FL 33139-6906	water	1	NA		1,225	1,203
31B	520666-00	comm	311 WASHINGTON AVE MIAMI BEACH FL 33139-6906	water	1	NA		23	17
31B	520667-00	hotel	425 OCEAN DR MIAMI BEACH FL 33139-6613	water	2	NA		640	624
31B	520667-00	hotel	425 OCEAN DR MIAMI BEACH FL 33139-6613	water	2	NA		0	0
31B	520667-00	hotel	425 OCEAN DR MIAMI BEACH FL 33139-6613	water	2	NA		761	739
31B	520668-00	hotel	455 OCEAN DR MIAMI BEACH FL 33139-6613	water	2	NA		1,490	1,340
31B	520680-00	condo	243 MERIDIAN AVE MIAMI BEACH FL 33139-7012	water	2	NA		650	625
31B	520680-00	condo	243 MERIDIAN AVE MIAMI BEACH FL 33139-7012	water	2	NA		700	667
31B	520730-00	res	827 4TH ST MIAMI BEACH FL 33139-6814	water	1	NA	0	24	19
31B 31B	520896-01 520974-01	apart	635 JEFFERSON AVE MIAMI BEACH FL 33139-8519 620 JEFFERSON AVE MIAMI BEACH FL 33139-8518	water	1 0.625		0 142	0 180	0 124
31B	520974-01	apart condo	350 MERIDIAN AVE MIAMI BEACH FL 33139-8518	water water	0.625	NA	144	28	22
31B	520988-03	condo	350 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	1	NA		20	5
31B	520988-03	condo	350 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	1	NA		21	12
31B	520988-03	condo	350 MERIDIAN AVE MIAMI BEACH FL 33139-8721	water	1	NA		19	16
31B	521064-00	apart	815 4TH ST MIAMI BEACH FL 33139-6823	water	1	NA		107	86
31B	521069-01	hotel	354 WASHINGTON AVE MIAMI BEACH FL 33139-6907	water	1.5	NA		357	360
31B	521308-00	condo	340 JEFFERSON AVE MIAMI BEACH FL 33139-6803	water	2	NA		247	111
31B	521434-02	hotel	426 MERIDIAN AVE MIAMI BEACH FL 33139-6520	water	2	NA		795	620
240	575045.02				-				020

 Basin 29 Total Consumption:
 June 2016
 July 2016
 August 2016

 23,839
 207,385
 179,788

water

water

NA

NA

401 JEFFERSON AVE MIAMI BEACH FL 33139-6502

419 WASHINGTON AVE MIAMI BEACH FL 33139-6617

576846-02 res

576890-00 comm

31B

31B

50

566

83

477





## **Appendix E**

**Basin CCTV Reports**